

OLD HIGH GERMAN 1<sup>ST</sup> PERSON PLURAL ENDING -mēs  
AND COD. SANG. 916

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by

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# OLD HIGH GERMAN 1<sup>ST</sup> PERSON PLURAL ENDING -mēs

AND COD. SANG. 916

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This dissertation focuses on the Old High German (OHG) 1<sup>st</sup> person plural ending -mēs, its origin, history and philological evidence. This ending is traditionally described as having an ē-vowel (long e-vowel), which is hard to account for when comparing it to attested verb endings in the other Germanic languages as well as the reconstructed verb system of Proto-Indo-European. This ending does not survive into later stages of German. Vowel length in Old High German is difficult to assess from philological evidence as OHG manuscript scribes typically do not indicate vowel length in unstressed syllables. It turns out that the crucial evidence for the phonological shape of the ending is the orthography of one particular 9<sup>th</sup> century manuscript, Cod. Sang. 916, which contains the interlinear glosses to the Rule of the Benedictine monks. In this text etymological long vowels are denoted with double writing, i.e. ē is denoted ee, but not consistently.

The dissertation is thus structured: First I account for the origin of the Germanic verb endings in Proto-Germanic and Proto-Indo-European. I focus especially on the 1<sup>st</sup> person plural category and the variation of endings observed in different Indo-European languages. I then discuss the 1<sup>st</sup> person plural ending in Germanic and OHG in particular and account for some variations found in certain texts.

I critically review previous theories about the origin of the ending. I take a close look at the manuscript Cod. Sang. 916. and analyze all the cases of long vowels occurring in this manuscript and compare their distributional patterns in the context of philological facts such as division into quires and contributions of various copyists and

scribes. I challenge the previous assumption about the phonological shape of the ending and argue that the evidence for the length of the vowel in the ending is ambiguous. I conclude that for some of the earlier scribes or copyists responsible for the text in this manuscript the vowel in the ending was short. Finally I reevaluate the previous ideas about the origin of the ending in light of the results and propose my own alternative hypothesis based on my findings.

## BIOGRAPHICAL SKETCH

Ellert Thor Johannsson was born in Reykjavík, Iceland, in 1972. He graduated from Hamrahlid Junior College (*Menntaskólinn við Hamrahlíð*) in 1992 where he majored in Modern Languages. Ellert studied General Linguistics and Icelandic at the University of Iceland (*Háskóli Íslands*), Reykjavík and received his B.A. degree in 1996. He went on to continue his studies in the graduate program in Icelandic Linguistics at the University of Iceland, concentrating on Old Norse and Icelandic linguistics as well as Germanic historical linguistics. Ellert spent the academic year 1998-1999 at Cornell University where he taught Old Norse in the Department of Linguistics. In the fall of 1999 he enrolled in the Ph.D. program in Linguistics at Cornell. As a graduate student at Cornell, Ellert concentrated on historical Indo-European linguistics with special emphasis on Germanic as well as Indo-Iranian and Anatolian. Ellert also taught Old Norse during this time. In 2005 Ellert got a grant to research Old Icelandic manuscripts in Copenhagen and subsequently relocated to Denmark with his Ithaca native wife, Sabrina. He has been employed as a member of the editorial staff of the *Ordbog over det norrøne prosasprog* (Old Norse prose dictionary) at the University of Copenhagen since 2006. Ellert and Sabrina are proud parents of Lilja Ellertsdóttir, born in November 2007.

*To Lilja and Sabrina*  
*- my two favorite girls.*

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# 1 Introduction

Old High German has a very noticeable feature in its verb conjugation system that distinguishes it from all the other old Germanic languages. Verb forms in the 1<sup>st</sup> person plural are characterized by an ending that is only found in OHG. In the oldest preserved texts, we find forms such as 1<sup>st</sup> person plural present indicative *berames*, taken to represent *beramēs* ‘we carry’. This can be contrasted with cognate forms in other Germanic languages, such as Gothic, *beram* and Old Norse, *berum* which show a different ending.

In Old High German the 1<sup>st</sup> person plural ending *-mēs* is not limited to the present indicative, but is also found in the present optative (subjunctive) as well as the preterite indicative and optative. The matter is made even more complex by the fact that besides verb forms showing this longer ending *-mēs*, we also find already in the oldest texts examples of a shorter 1<sup>st</sup> person plural ending in *-m*. This ending also occurs with verb forms in both the present and preterite tense, indicative and optative. This alternative ending *-m* seems to be the same as the ending found in the other Germanic languages and can be explained and accounted for when considering comparative evidence from Germanic as well as other Indo-European languages. The longer ending, *-mēs*, is more enigmatic as it lacks clear cognates in Germanic, and elsewhere, and does not survive into later stages of German.<sup>1</sup>

This dissertation takes a closer look at the Old High German 1<sup>st</sup> person plural ending *-mēs* and its origin as well as its phonological form. The goal is to shed new light on this problematic ending by drawing on different methods available to the historical linguist. The tools at our disposal include comparative evidence, both within Germanic

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<sup>1</sup> A brief clarification on the notation of this ending in this work is needed: When discussing the ending in general I use the spelling *-mēs*. This is in line with the spelling in all the major handbooks, where we find either *-mēs* or *-mēs*, reflecting a long vowel.

and from Proto-Indo-European, as well scrutiny of original material, i.e. looking at philological evidence from texts and statistical analysis of those texts. The hope is that by approaching this problem by supplementing comparative evidence with statistically analyzed philological material we can gain new insight into the origin of this problematic ending.

This investigation is inspired by the desire to challenge a basic assumption. A review of the handbooks and the previous literature dedicated to the study of this ending reveals a consistent common opinion that the ending is correctly represented as *-mēs*, i.e. with a long vowel. This conclusion seems to be unchallenged in spite of some obvious problems, i.e. the lack of direct cognates in Germanic and Indo-European and the failure of this ending to survive into later stages of German and most importantly the fact that the encoding of length is inconsistent in the Old High German manuscripts where this ending occurs. This led me to pose the question which is perhaps the most important one we can ask in historical linguistics, namely “Why?” Why do we assume this? Was the vowel of the ending really long?

It turns out that the crucial evidence regarding the phonological status of this ending rests with one particular manuscript, Cod. Sang. 916, which includes the Old High German version of the ‘Benedictine Rule’, a medieval Latin text concerning the life and conduct of Benedictine monks. It became clear that the details about the origin and history of this manuscript needed to be sorted out before we could answer the question about the vowel length in the ending *-mēs*. A considerable part of the dissertation work therefore became an examination of the orthography of this manuscript and its relation to the larger picture of the development and representation of long unaccented vowel categories in Old High German.

This work can therefore be described as a story that starts with the *mēs*-ending and its place within the context of the verb conjugation system of Germanic and Proto-Indo-European. The story then shifts to focus on the philological issues involved and an

account of the textual evidence of the manuscript Cod. Sang. 916 and its phonological analysis. After reviewing the evidence and reanalyzing the data we will see how the results of this investigation can be used to further our knowledge about the development of the OHG phonological system and certain morphological categories, and ultimately allow us to see the ending *-mēs* in a clearer light than before. We are then equipped with the necessary tools to go back to where we started and revisit the problematic history of the ending and consider alternative hypotheses about its origin. The usefulness of this approach reaches further than this particular investigation. As historical linguists we cite as facts various word forms mentioned in the literature and often a crucial link in our argumentation rests on one particular form that has been cited in secondary sources but we never have seen in its original context or know much about the text where it is found. Often the interpretations of texts are disputed and the evidence not as clear as many of the secondary sources would like to imply. At this day and age it is easier than before to examine the matters more closely by going directly to the source. High resolution photographs of manuscripts are available on the internet. Electronic databases of philological material are accessible so texts can be sorted and analyzed in a relatively easy manner, giving us new insight into the source material. It is often the case that individual words and texts we use as examples have their own, often controversial, history and are rarely as reliable as we would like them to be. However we now have better possibilities to go beyond citations and editions and look critically at the original source material and make our own judgments.

Therefore this work is not only about addressing this rather narrowly defined linguistic problem. It also demonstrates the methods, tools and resources we have at our disposal. It illustrates how by asking such simple and straight-forward questions we may gain new insights into other issues that unavoidably need to be addressed along

the way. It is my hope that this approach can encourage some new growth in the thoroughly plowed field of Germanic Historical Linguistic.

## 2 The Germanic Verb and the origin of forms

### 2.1 Introduction

Before we start our discussion about the 1<sup>st</sup> person plural ending in Old High German (OHG) it is necessary to establish the basic facts about the Germanic verb system as well as its Indo-European origin. The oldest linguistic sources we have at our disposal from the three branches of Germanic point to a uniform system which we assume goes back to Proto-Germanic (PG), the reconstructed ancestor of all the known Germanic languages. This ancestor language furthermore represents one of the ten to twelve language branches descended from Proto-Indo-European (PIE) according to the standard classifications of Indo-European languages (cf. Szemerényi 1990:10-12).<sup>2</sup>

Even though the minor details of this genealogy are disputed, the basic classification is undeniable. It is also clear that the Germanic languages are a coherent language family, descended from PIE, which includes a number of languages that share certain common innovations and linguistic features. This is evident when looking at the variety of dialects found in the Germanic linguistic area of Western- and Northern-Europe and the oldest texts attested in Germanic languages.

The main phonological and morphological characteristics of Proto-Germanic can be reconstructed with some certainty, using the methods of comparative linguistics. The same can be said about the linguistic features of the PIE ancestor language. It is also clear that these two reconstructed stages of language vary considerably and this is especially clear when it comes to the verb system. It is evident that the verb system of Proto-Germanic is fundamentally different from the classic verb system of PIE as it is usually reconstructed.

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<sup>2</sup> There are a few variations on this classification model with regard to the definition of some of the minor sub-families as well as whether Baltic and Slavic represent one family or two. The actual number of Indo-European language families usually ranges between 9 and 13 (cf. Meier-Brügger 2003:18-41).

The basis of our knowledge of the PIE verb system traditionally comes from Ancient Greek and Indo-Iranian, i.e. Vedic Sanskrit and Avestan. Based on evidence from these two branches scholars have concluded that the PIE verb system included many features which are prominent in these languages, such as multiple aspect system, different moods and voices and incorporation of many morphological processes to indicate these grammatical features. This can be described as the traditional standard view of the PIE verb and is part of the reconstructed PIE as it is presented in most handbooks (cf. Szemerényi 1990; Meier-Brügger 2003; LIV 2001).

As our knowledge of PIE has improved with better understanding of other lesser known branches of PIE, such as Anatolian and Tocharian, it has become harder to maintain the view that Greek and Indo-Iranian best reflect the verb system of PIE. The verb systems in the Anatolian and Tocharian language branches differ considerably from the verb system of the classic languages. Evidence from these branches indicates that the Greek/Indo-Iranian model cannot be taken as representing the earliest state of affairs in PIE. This has led some scholars to totally abandon the classic reconstructed verb system and assume the existence of an even earlier stage of PIE that had much fewer verb categories and loose association between morphemes and meaning (cf. Adrados 1964, Neu 1967, Shields 1992). Although such approaches have highlighted some problematic aspects of older scholarship they have not yet provided us with an advantageous alternative to traditional reconstruction.

Recent studies have suggested that even though the classic Greek/Indo-Iranian view of the verb might not represent the earliest state of affairs in PIE, the basic components of that system were already present very early. Research into Anatolian and Tocharian material does not call for a radical deconstruction of the PIE verb system but simply a reevaluation of the verb categories and some aspects of the verb morphology in order to better account for the features that are characteristic of the verb system in these languages.

Even though the Germanic verb system is quite different from the reconstructed verb system of PIE, the former must be a descendant of the latter. It is clear that some peculiarities of the Germanic verb system are best explained as inherited remnants of various categories known from the reconstructed PIE verb system, which no longer are preserved intact. Morphological facts of all the Indo-European language branches can be incorporated into a consistent verb system which we can reconstruct for common PIE. The position taken here is in line with the general view that the Germanic verb system continues the common verb system of common PIE, which included the main components of the Greek/Indo-Iranian verb system, but has undergone radical changes and reduction of categories since Germanic started treading its own path away from its PIE relatives. This approach does not prevent us from incorporating elements of some more recent ideas about the origin and development of the PIE verb, where we find it useful.

In the next couple of subsections we will focus on the main characteristics of both the PIE verb system and the PG verb system in order to highlight the differences and identify the relevant factors that will come into play when we start looking at verb endings and the 1<sup>st</sup> person plural forms in particular.

## **2.2 The Proto-Indo-European verb system**

Our starting point is the stage of PIE which we assumed included the basic components of the Greek/Indo-Iranian verb system as well as elements of the Tocharian and Anatolian verb systems. To adequately account for the situation in Germanic we need first to discuss the features of this reconstructed verb system as it will serve as the basis for our subsequent discussion of the development of the verb in Germanic.

The PIE verb system was quite elaborate. It seems to have had a variety of grammatical categories such as a tense/aspect system as well as multiple moods and voices. It also employed various morphological processes to indicate these categories. The core elements of this system are well established but there are different opinions amongst scholars regarding the status of certain categories and morphological elements. The system outlined here is one common version but not the only one, (cf. Kerns & Schwartz 1971 for a somewhat different view).

### 2.2.1 *Basic grammatical categories*

The basic grammatical categories of the system are schematized in the following way:

**Table 2.2-1**

Three persons:	speaker (1), hearer (2), person or thing talked about (3)
Three numbers:	singular, dual and plural
Three aspects:	present, aorist and perfect
Four moods:	indicative, subjunctive, optative and imperative
Two voices:	active and medio-passive

(cf. Bammesberger 1986, Szemerényi 1990, Boutkan 1995<sup>3</sup>)

#### 2.2.1.1 *Person and number*

The first two categories are universally agreed upon. It is clear that there were three persons and it is clear that there were three numbers. The dual is not a very robust category in many Indo-European language families, including Germanic, and has a tendency to be entirely eliminated. Its prominent status in some Indo-European languages and its overall attestation suggests that the dual should be included in the PIE inventory.

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<sup>3</sup> This table is based on information found in the referenced works but has been streamlined to best reflect the views of the author.



### *2.2.1.2 Aspect*

The comparative evidence indicates that there was a distinction in the protolanguage between three different temporal/aspectual functions. These categories have historically been labeled either as tense or aspect. The aspectual nature of the PIE verb system better accounts for the divergence and development of different tenses and aspect distinction in the daughter languages. It is generally believed that the major distinction in PIE was the division between different aspects. We can identify a three way distinction between present, aorist and perfect aspects. The present and aorist have different functions but share some morphological properties, such as stem types and endings, whereas the perfect is formally very different from the other two. There was also a temporal tense division in the verb system, between present : past which is implemented on one hand as present vs. imperfect and on the other hand as perfect vs. pluperfect. This division will have to be considered separate from the more primary division into aspects.

### *2.2.1.3 Mood*

The PIE verb system had several moods. It is clear that it had indicative, subjunctive and optative moods as well as an imperative mood. The status of other moods, such as the injunctive mood, which is sometimes reconstructed for PIE, is less certain and it is not clear to what extent they were part of the proto-language (cf. LIV 2001:14-26 for extensive inventory of possible moods, Watkins 1969:45-46 about the injunctive specifically). The imperative did not exist for all persons and number, i.e. the 1<sup>st</sup> person singular. The role of emphatic particles and the status of 3<sup>rd</sup> person imperative forms is somewhat unclear as well (cf. Szemerényi 1990:263).

#### 2.2.1.4 *Voice*

The distinction between active and medio-passive voice is a feature of the verb system of a number of Indo-European languages. This distinction goes back to PIE where we can reconstruct a clear separate category of medio-passive. The differences among medio-passive forms in the daughter languages show that this category was early on susceptible to analogical influence from the active but ultimately might have its root in an earlier category closely related to the PIE perfect formation (cf. Jasanoff 2003).

#### 2.2.2 *The morphological components of a finite verb form*

Having established the formal categories of the reconstructed verb system we can now look at how morphological components come into to play when a typical finite form of the verb is constructed. There are certain verbal elements that were part of the common Proto-Indo-European inheritance and can be reconstructed for the proto-language. The basic building block or foundation of a verb form is the root. To the root are added stem formation suffixes and mood suffixes to form the stem of the verb. To the stem we finally have endings added. The stem can also appear to be just the bare root, i.e. the endings are added directly onto the root with no intervening suffixes. For the sake of consistency it helps to look at such forms as containing a *zero* suffix ( $\emptyset$ -suffix).

To go into a detailed discussion about the morphological intricacies of PIE would be beyond the scope of this study. A somewhat simplified discussion is sufficient to illustrate the fundamental building blocks of a typical verb form. The stem formation elements that are added to the root to form a verbal stem can be divided into two kinds of suffixes. The first kind is the stem forming suffix which is sometimes associated with certain tense formations. This suffix can then be followed by a suffix of the second type which is the mood-suffix, i.e. a suffix that is associated with the formation of certain moods.

A special attention should be paid to an element which is often a part of stem formation suffixes, i.e. the so called “thematic vowel” which could appear in either *e* or *o* ablaut grade and was frequently added to a root or other suffixes to form a verbal stem. Stems that end in a thematic vowel are called thematic stems as opposed to athematic stems that do not contain such a vowel. The reason why this difference is important is that there is a slight difference in the choice of endings between thematic stems and athematic ones.

The outlines of the main stem-formation suffixes of the PIE verb system is schematized in Table 2.2-2:

**Table 2.2-2**

	<b>Athematic</b>	<b>Thematic</b>
<b>Indicative suffix</b>	- $\emptyset$ -	- <i>e</i> - + - $\emptyset$ - = - <i>e</i> -
<b>Subjunctive suffix</b>	- <i>e</i> - alternating with - <i>o</i> -	- <i>e</i> - + - <i>e</i> - = - $\bar{e}$ - alternating with - <i>o</i> - + - <i>o</i> - = - $\bar{o}$ -
<b>Optative suffix</b>	- $\bar{i}eh_1$ - in ablaut with - $\bar{i}h_1$ -	- <i>o</i> - + - $\bar{i}h_1$ - = - $\bar{o}i$ -

(cf. Meier-Brügger 2003:166)

### 2.2.3 Endings

Having now looked at the possibilities in stem formation we will focus on the last building block of the finite verb form, i.e. the ending. As this feature of the verb system is the central focus of the study undertaken here, it warrants a somewhat detailed discussion. Several systems of endings need to be distinguished. The first distinction should be made between present/aorist vs. perfect, where we find different sets of endings being used. Another distinction we should make is between the active and medio-passive endings. The distinction between the present/aorist system and the perfect system is considered clear-cut. The perfect system appears as rather straightforward with only one set of endings whereas the present/aorist system is

somewhat more complicated with many sets of endings conditioned by different morphological categories. Recent investigations have changed this picture somewhat and indicate that the PIE perfect system was more elaborate and included a pluperfect formation and a perfect middle category (cf. Jasanoff 2003). We will first account for the present/aorist system and then move on to the perfect system.

### 2.2.3.1 The present/aorist endings

In the present/aorist we distinguish between active and medio-passive voice. The distinction between the two voices is indicated by a separate set of endings. Furthermore within each voice we distinguish between primary and secondary endings. The choice between primary and secondary endings is correlated with the formation of certain tenses and moods. It is also necessary to make a distinction between so-called thematic and athematic endings. This is schematized in Table 2.2-3 below which shows the endings of the active voice in the present/aorist system.

**Table 2.2-3**

<b>Singular</b>	<b>Secondary</b>	<b>Thematic</b>	<b>Primary</b>	<b>Thematic</b>
<b>1<sup>st</sup></b>	*- <i>m</i>	*- <i>o-m</i>	*- <i>m-i</i>	*- <i>ō</i> < *- <i>oh<sub>2</sub></i>
<b>2<sup>nd</sup></b>	*- <i>s</i>	*- <i>e-s</i>	*- <i>s-i</i>	*- <i>e-s-i</i>
<b>3<sup>rd</sup></b>	*- <i>t</i>	*- <i>e-t</i>	*- <i>t-i</i>	*- <i>e-t-i</i>
<b>Plural</b>				
<b>1<sup>st</sup></b>	*- <i>me</i>	*- <i>o-me</i>	*- <i>me-s</i>	*- <i>o-me-s</i>
<b>2<sup>nd</sup></b>	*- <i>te</i>	*- <i>e-te</i>	*- <i>te</i>	*- <i>e-te</i>
<b>3<sup>rd</sup></b>	*- <i>nt</i> / *- <i>ént</i>	*- <i>o-nt</i>	*- <i>nt-i</i> / *- <i>ént-i</i>	*- <i>o-nt-i</i>

(cf. Meier-Brügger 2003:178)

We can see from Table 2.2-3 that the difference between primary and secondary endings involves additional morphological elements in the set of primary endings. The secondary endings are therefore more “primary” in a morphological sense. In the singular the primary endings are formed from the secondary endings with the addition of an *i*-suffix. This is also the case in the third person plural. In the first person plural

the added morphological item is not *-i* but an *-s*. In the second person plural there is no formal distinction between primary and secondary endings.

In the third person plural of regular primary and secondary (athematic) endings we have two variants of the reconstructed ending. The distribution of these variants is phonological, i.e. nasals are syllabic interconsonantly.

The thematic endings are comprised of the thematic vowel which occurs in *e*-grade in the 2<sup>nd</sup> and 3<sup>rd</sup> person singular and 2<sup>nd</sup> person plural and *o*-grade in 1<sup>st</sup> person singular and plural and third person plural and an eventual primary or secondary ending. It is only in the 1<sup>st</sup> person singular where the thematic ending is formally very different from a corresponding athematic ending. Here the ending is not *\*-omi* as one might expect based on the pattern of other singular forms between primary and secondary endings, but rather *\*-ō* from *\*-oh<sub>2</sub>*. This ending appears to be related to the 1<sup>st</sup> person singular ending in the perfect as well as the 1<sup>st</sup> person singular ending in the medio-passive. The relationship between these verb categories stretches back into the early history of PIE, cf. Jasanoff (2003), and will be discussed further below.

A different set of endings is associated with the medio-passive voice. The reconstruction of these is somewhat difficult as the Indo-European languages show great variation in the endings of this category. An inventory of the commonly reconstructed endings of the medio-passive is shown in Table 2.2-4.

**Table 2.2-4**

<b>Singular</b>	<b>Secondary (a)</b>	<b>Secondary (b)</b>	<b>Primary (a)</b>	<b>Primary (b)</b>
<b>1<sup>st</sup></b>		<i>*-h<sub>2</sub>e</i>	<i>*-mai</i>	<i>*-h<sub>2</sub>e-<u>i</u></i>
<b>2<sup>nd</sup></b>	<i>*-so</i>	<i>*-th<sub>2</sub>e</i>	<i>*-so-<u>i</u></i>	
<b>3<sup>rd</sup></b>	<i>*-to</i>	<i>*-o</i>	<i>*-to-<u>i</u></i>	<i>*-o-<u>i</u></i>
<b>Plural</b>				
<b>1<sup>st</sup></b>	<i>*-med<sup>h</sup>h<sub>2</sub></i>		<i>*-mesd<sup>h</sup>h<sub>2</sub></i>	
<b>2<sup>nd</sup></b>	<i>*-d<sup>h</sup><u>ue</u></i>		<i>*-(s)d<sup>h</sup><u>ue</u></i>	
<b>3<sup>rd</sup></b>	<i>*-nto</i>		<i>*-nto-<u>i</u></i>	

(cf. Meier-Brügger 2003:179-180)

Here we do not find a thematic/athematic contrast and so, no separate endings in the 1<sup>st</sup> person singular. An added complication is the distinction between what has been labeled here as (a) vs. (b) sets of endings. This distinction is only present in the singular. It seems that the endings that fall under the heading (a) share certain characteristics with the regular active endings, e.g. *m*-element in the 1<sup>st</sup> person, *s*-element in the 2<sup>nd</sup> person and a *t*-element in the third person. It is therefore likely that they are a result of an analogical influence from the active and do not reflect the oldest stage of this category. It is even doubtful that they can be considered part of the common inventory of PIE. The (b) endings are more archaic and seem to be related to the perfect endings but also show some influence from the regular active endings with the distinction between primary and secondary endings strongly linked to the presence of absence of the particle *-i*.

What is not reflected in the reconstructions in Table 2.2-4 are the so-called *r*-endings which are a prominent feature of the middle/passive formation and deponent verbs (i.e. verbs with active meaning but passive morphology) of many Indo-European languages. Italic, Celtic, Tocharian, Anatolian (Hittite) all show middle or a passive formation characterized by a hic-et-nun particle *-r*, that marked the primary middle endings, e.g. OIr. *berair* ‘is brought’ (cf. Szemerényi 1990:257-258, Jasanoff 1976). These distributional facts indicate that this *r*-element was part of the PIE inventory and played a prominent part in the formation of the PIE medio-passive.

Jasanoff (2003) discusses the features of the PIE medio-passive and its historical links to other verb categories such as the perfect. He attempts to connect these categories and put them into context within his framework of the PIE verb development. As a result we can reconstruct a system of endings in the oldest stage of PIE medio-passive

that encompasses the evidence from different branches of Indo-European and satisfactorily accounts for the morphological facts.<sup>4</sup> These are shown in Table 2.2-5.

**Table 2.2-5**

<b>Singular</b>	<b>Secondary</b>	<b>Primary</b>
<b>1<sup>st</sup></b>	*- <i>h<sub>2</sub>e</i>	*- <i>h<sub>2</sub>e-r</i>
<b>2<sup>nd</sup></b>	*- <i>th<sub>2</sub>e</i>	*- <i>th<sub>2</sub>e-r</i>
<b>3<sup>rd</sup></b>	*- <i>o</i>	*- <i>o-r</i>
<b>Plural</b>		
<b>1<sup>st</sup></b>	*- <i>med<sup>h</sup>h<sub>2</sub></i>	*- <i>med<sup>h</sup>h<sub>2</sub>-r</i>
<b>2<sup>nd</sup></b>	*- <i>d<sup>h</sup>(u)<u>ue</u></i>	*- <i>d<sup>h</sup><u>ue</u>-r</i>
<b>3<sup>rd</sup></b>	*- <i>(ē)ro</i>	*- <i>(ē)-ro-r</i>

(cf. Jasanoff 2003:55)

In the medio-passive system we have the same sort of distinction between primary and secondary endings as we find in the active. As we observed in the active, the primary endings are formed by an addition of an *i*-element except in the 2<sup>nd</sup> plural, where there is no distinction, and in the 1<sup>st</sup> plural, where the added element is an *s*. The corresponding element in the medio-passive is *-r*. This is the primary marker for all the persons in both singular and plural.

A comparison of the endings in Table 2.2-4 and Table 2.2-5 illustrates the development of medio-passive endings. The endings in Table 2.2-4 have undergone various secondary processes and clearly reflect analogical influence from the active. Most noticeable is the expansion of primary ending marker *-i* to take over the role of the *-r*. We also notice that some other morphological features of the active have made their way into the passive formations, such as the *-s* of the 2<sup>nd</sup> sg., *-t* of the 3<sup>rd</sup> sg. and *-nt* of the 3<sup>rd</sup> plural.

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<sup>4</sup> Table 2.2-5 is based on Figure 2.7 in Jasanoff (2003) with the exceptions that all secondary forms have been left out and the *r*-element that Jasanoff reconstructs with a question mark in the plural of the primary endings, is shown as part of all forms.

### 2.2.3.2 The perfect endings

Traditionally the perfect has been considered a very different from the present/aorist in its morphological realization. This category possesses distinctive characteristics such as reduplication and ablaut alternation between zero- and *o*-grade in the root as well as a specific set of endings. The PIE perfect is reconstructed as a relatively simple category, at least when compared to the present/aorist formation, as it contains only one basic type of stems. It lacks a distinctive medio-passive voice and there is furthermore no distinction either between thematic and athematic endings or primary and secondary endings (Meier-Brügger 2003:181). As a result the scheme of endings of the reconstructed PIE perfect is far less elaborate than the one of the present/aorist. Thus the whole extent of perfect endings can be schematized in a rather simple way. This is illustrated in Table 2.2-6.

**Table 2.2-6**

<b>Singular</b>	<b>Secondary</b>
<b>1<sup>st</sup></b>	*- <i>h<sub>2</sub>e</i>
<b>2<sup>nd</sup></b>	*- <i>th<sub>2</sub>e</i>
<b>3<sup>rd</sup></b>	*- <i>e</i>
<b>Plural</b>	
<b>1<sup>st</sup></b>	*- <i>me</i>
<b>2<sup>nd</sup></b>	*- <i>te</i> <sup>5</sup>
<b>3<sup>rd</sup></b>	*- <i>r</i>

(cf. Meier-Brügger 2003:180-181)<sup>5</sup>

This is the scheme of endings we find in most of the handbooks and is reflective of the situation in Greek and Indo-Iranian. The first and second person plural are especially difficult to reconstruct as the daughter languages show significant remodeling and analogical extensions of the active endings. As a result the perfect endings shown here

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<sup>5</sup> Meier-Brügger does not have a reconstructed 2<sup>nd</sup> plural perfect ending. The 2<sup>nd</sup> plural has been added based on information from Rix (1992:255) for the sake of completion but is of course identical to the corresponding ending in the present/aorist.



are not synchronically distinguishable from their counterparts among the present/aorist secondary endings.

Our understanding of the perfect category is enhanced when we view it in context with other aspects of the PIE verb system. It is clear when we compare the endings of the perfect in Table 2.2-6 to the endings of the middle in Table 2.2-5 that there is a connection between the two. Jasanoff (2003) has given the most up-to-date account on how these endings, and ultimately the categories, might be related. Drawing on evidence from Indo-Iranian and Anatolian he improves upon the reconstruction of the endings, and assumes the following scheme of endings for early PIE perfect.

**Table 2.2-7**

<b>Singular</b>	<b>Secondary</b>
<b>1<sup>st</sup></b>	*- <i>h<sub>2</sub>e</i>
<b>2<sup>nd</sup></b>	*- <i>th<sub>2</sub>e</i>
<b>3<sup>rd</sup></b>	*- <i>e</i>
<b>Plural</b>	
<b>1<sup>st</sup></b>	*- <i>meH</i>
<b>2<sup>nd</sup></b>	*- <i>(H)e</i>
<b>3<sup>rd</sup></b>	** <i>-ers</i> > *- <i>ēr</i>

(cf. Jasanoff 2003:30-63)

The reconstruction of the 1<sup>st</sup> plural as having a final laryngeal and thus being different form from the present/aorist secondary ending is largely based on long vowel endings *-mā* in Vedic which are preferred by some perfect forms (cf. Arnold 1905:112, Jasanoff 2003:32). The 2<sup>nd</sup> plural is similarly based on the archaic ending *-á* in Vedic, which he assumes goes back to \*-*(H)e*.<sup>6</sup> This 2<sup>nd</sup> plural ending is possibly corroborated by an ending *-e* found in an inscription in the Paelignian dialect of Oscan (Watkins 1969:35). The 3<sup>rd</sup> plural has three different realizations of which the \*\**-ers* > \*-*ēr* is the most basic one.<sup>7</sup> Beside this form we have \*-*rs* which is a regular

<sup>6</sup> The laryngeal in question is most probably *h<sub>1</sub>*, so the form of the ending in PIE would have been \*-*h<sub>1</sub>e*

<sup>7</sup> The development of \*\**-ers* to \*-*ēr* is a result of a PIE sound law which independantly attested elsewhere in PIE, e.g. in the nom. sg. of *r*-stems, \*\**ph<sub>2</sub>ters* > \**ph<sub>2</sub>tēr*.

alternate form occurring after accented syllables, cf. the alternation between *\*-ént* and *\*-nt* in the active (Jasanoff 2003:33). The third variant ending is *\*-ŕ*, which Jasanoff explains as an “analogical alteration of *\*-ŕs* under the influence of *\*-ēr*” (ibid.). By assuming these three variant of the ending he is able to account for all the variations found in the 3<sup>rd</sup> plural perfect endings in the various daughter languages.

Jasanoff’s formulation of the historical development of the perfect is a definite improvement over the previous state of affairs. The biggest breakthrough is in the reconstruction of the oldest form of the 3<sup>rd</sup> plural ending. The 1<sup>st</sup> and 2<sup>nd</sup> plural remain problematic as the evidence for different endings than the ones found in the present/aorist is rather scant. The reconstruction of the 1<sup>st</sup> and 2<sup>nd</sup> plural perfect endings is based almost solely on evidence from Indic and thus not as convincing as they would be if they were independently corroborated by evidence from other branches. If these unique perfect endings in 1<sup>st</sup> and 2<sup>nd</sup> person plural were common to all of PIE they were very early replaced by the regular secondary endings of the present/aorist in all other branches.

There are further insights to be gained by Jasanoff’s treatment of the perfect. We have knowledge of categories related to the perfect, such as the pluperfect formation found most notably in Greek and Indo-Iranian. The pluperfect is usually considered a later innovation as it shows mixed morphological characteristics, the stem formation is in line with the perfect but the endings are not the perfect endings, but rather the same secondary endings as we find in the present/aorist. By looking at the distribution of the variants of the 3<sup>rd</sup> person plural ending, as well as ablaut peculiarities in Indo-Iranian, Jasanoff argues that the category of pluperfect is not a late innovation but rather a feature of common PIE. The same is to be said of the category of perfect middle which is primarily known from Indo-Iranian and Greek and some suffixless preterites in Old Irish. This does not however change anything about the inventory of perfect endings. The endings are the same as we find in Table 2.2-7 and were limited to the perfect

proper. If there ever existed distinct secondary perfect endings, these are no longer recoverable.

From this revised view of the perfect we can see that this category was elaborate already in the proto-language and had the same basic morphological features as the present/aorist. The story of the perfect is therefore much more complicated than our first impression indicated.

Looking at the perfect endings in Table 2.2-7 and comparing them with the middle endings in Table 2.2-5 we observe many similarities indicating that the two might be related. This could suggest that ultimately the endings might have been the same or gone back to the same source. There are also striking differences that we need to account for if we pursue this line of thinking. A fundamental difference is the division between primary and secondary endings in the middle while there is no such distinction in the perfect. Comparing the primary endings of the middle with the perfect endings we see that the singular endings in the 1<sup>st</sup> and 2<sup>nd</sup> person are the same. The difference between perfect \*-e and middle \*-o in the 3<sup>rd</sup> person can be attributed to a sound-law or a sound process where \*e > \*o under certain conditions (Jasanoff 2003:57-58). The 3<sup>rd</sup> plural endings are also similar to the middle endings and seem to be extended by what looks as the same morphological element -o we find in the 3<sup>rd</sup> singular (Jasanoff 2003:56). Just looking at these four sets of endings we can deduce that they ultimately were the same as the perfect endings but the middle shows secondary developments which have caused some differentiation in the shape of the endings.

It is hard to reconcile the two remaining sets of endings, i.e. the 1<sup>st</sup> and 2<sup>nd</sup> plural. Jasanoff's general view of the perfect is that it behaves like a relic category, which has held on to archaic forms whereas the multitude of variant endings found in the middle show that this category was in constant development (Jasanoff 2003:58). This position

entails that the perfect 1<sup>st</sup> and 2<sup>nd</sup> plural would likely have held onto the archaic forms of endings whereas the middle would be more likely to show innovative forms.

While this is a possibility worth exploring we need to remember that the reconstructed perfect endings of the 1<sup>st</sup> and 2<sup>nd</sup> person plural are not based on wide ranging comparative evidence. The reconstructed forms of the 1<sup>st</sup> and 2<sup>nd</sup> person middle are much more robust. It is also necessary to acknowledge that even though the middle endings show innovative analogical forms and considerable variety, the 1<sup>st</sup> and 2<sup>nd</sup> plural are not as susceptible to variation as some of the other endings. If these forms are somehow innovative it is not immediately clear what the motivational factors might have been. It is at least clear that the active did not play a big part in attributing to the morphological characteristics of these middle endings as they are very different from the corresponding active endings. The perfect endings show less of a deviation from the corresponding present/aorist endings. It is therefore also possible that the middle holds on to archaic endings that were lost in the perfect.

As was mentioned above we can further extend the connection of the perfect and the middle to include the thematic 1<sup>st</sup> person singular ending in *\*-oh<sub>2</sub>*. This ending probably reflects the same element as the perfect and middle 1<sup>st</sup> person singular ending *\*-h<sub>2</sub>e*. The sequence *\*-oh<sub>2</sub>e* was reduced to *\*-oh<sub>2</sub>* according to a PIE apocope rule that can explain similar alternation in the nom./acc. dual of nouns, i.e. Greek *πόδε* < *\*podh<sub>1</sub>e* vs. *λύκω* < *\*lk<sup>w</sup>oh<sub>1</sub>* (cf. Jasanoff 2003:60-61).

The alleged relationship between the thematic 1<sup>st</sup> person ending, perfect and middle endings, as well as the reconstruction of a PIE pluperfect and perfect middle gives us added insight into the Proto-Indo-European verb system and the variety and distribution of the reconstructed endings.

### 2.2.3.3 Imperative endings

The imperative is a mood and not a tense or an aspect. We do find some endings that have not been mentioned yet and are special to that mood. Due to the nature of the imperative as the mood of command it is limited to present (or future) use and mostly used in the 2<sup>nd</sup> person forms. We are also able to reconstruct 3<sup>rd</sup> person imperative forms. Some Indo-European languages have 1<sup>st</sup> person imperative forms, often called adhortatives, as well but those usually reflect specialized use of optatives and do not basis for reconstruct a common PIE forms.

There is a distinction between athematic and thematic verbs which is most clearly reflected in the 2<sup>nd</sup> person singular form. The particle *-u* was sometimes added to the 3<sup>rd</sup> person forms.

**Table 2.2-8**

<b>Singular</b>	<b>Athematic act.</b>	<b>Thematic act.</b>	<b>Medio-passive</b>
<b>1<sup>st</sup></b>			
<b>2<sup>nd</sup></b>	*- $\emptyset$ , *- $d^hi$	*- <i>e</i>	*- <i>so</i>
<b>3<sup>rd</sup></b>	*- <i>t(u)</i>	*- <i>et(u)</i>	*- <i>to</i>
<b>Plural</b>			
<b>1<sup>st</sup></b>			
<b>2<sup>nd</sup></b>	*- <i>te</i>	*- <i>ete</i>	*- $d^hye$
<b>3<sup>rd</sup></b>	*- <i>ent(u)</i>	*- <i>ont(u)</i>	*- <i>nto</i>

(cf. Szemerényi:1990:263)

The status of \*-*so* as a PIE medio-passive ending should be called into question. This ending is relatively late and not supported by many languages, e.g. Hittite, Indic and Tocharian all point to a different form. It is more likely that the early form of the ending was \*-*sh<sub>2</sub>uo* (cf. Jasanoff 2006). It should also be mentioned that some languages, such as Vedic, Greek and Latin, show evidence of different type of imperative forms with endings in \*-*tōd*. We find this ending in the 2<sup>nd</sup> and the 3<sup>rd</sup> person singular and plural often with a future meaning. This is sometimes referred to as the future imperative. The formation is derived from the regular imperative forms

with the addition of an additional ending which is usually taken as an ablative of a pronoun *\*to-*. The result is that some forms fall together following secondary phonological developments. This way we end up with the same form for the 2<sup>nd</sup>, 3<sup>rd</sup> singular and 2<sup>nd</sup> plural, i.e. *\*\*bhere-tōd*, *\*\*bheret-tōd* and *\*\*bherete-tōd* all become *\*bheretōd* (Szemerényi 1990:264-265).

We have now taken a brief look at the verb system of PIE, focusing on the inventory of morphological components, especially endings. We are then equipped with the necessary background information to better understand the development to Germanic and the verb system of the earliest Germanic languages.

## 2.3 The Proto-Germanic verb system

It is clear that the verb system underwent significant changes on its way from PIE to Germanic. It is hard to account for the details of how this development took place. Our starting point is comparing the oldest surviving Germanic language sources to reconstruct the inventory of common grammatical components. This helps us establish the properties of the Proto-Germanic verb system. The next step is then to compare the reconstructed PG verb system with the reconstructed verb system of PIE. When we contrast these two systems we notice some similarities but also fundamental differences.

### 2.3.1 Basic grammatical categories

The categories we have evidence for in the individual Germanic languages and therefore assume were present in Proto-Germanic are the following:

**Table 2.3-1**

Three persons:	speaker (1), hearer (2), person or thing talked about (3)
Three numbers:	singular, dual and plural
Two tenses:	present, and preterite
Three moods:	indicative, optative, imperative
Two voices:	active and passive

Compared with the PIE system discussed in section 2.2 we can clearly see that the development into Germanic included a significant reduction in grammatical categories. We end up with a system composed of two tenses, a present and a preterite and two main moods, indicative and optative as well as some imperative forms. The medio-passive voice is only found as a somewhat active category in Gothic but is otherwise lost almost without a trace in the other Germanic languages (see 2.3.3.11).

An important innovation in the Germanic verb system is the emergence of ‘weak verbs’ with the invention of the Germanic dental preterite. This is perhaps the most studied linguistic phenomenon within the realm of Germanic linguistics with many dozens of competing theories (cf. Tops (1972) for a discussion of a majority of these). This reduction of categories along with the innovation of the dental preterite of weak verbs is the highlights of the characteristic difference between the PIE and PG verb systems.

#### *2.3.1.1 Persons*

The person system of Proto-Germanic must have been similar to the person system of PIE and included all three persons, singular, dual and plural. The dual is a declining category in Germanic. Dual verb forms are only preserved in Gothic and not as a full-fledged component of the verb system as they are only found in the 1<sup>st</sup> and 2<sup>nd</sup> person forms. The loss of the dual in 3<sup>rd</sup> person forms is related to the loss of duals in 3<sup>rd</sup> person pronouns. In the 1<sup>st</sup> and 2<sup>nd</sup> person the dual pronouns survived and thus the corresponding verb forms were preserved (Braune/Heidermanns 2004:142).<sup>8</sup> In other Germanic languages the dual is wholly lost as a verb conjugation category. The status of the dual in Gothic as a semi-independent category indicates that the dual was

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<sup>8</sup> In the Gothic Bible translation we don’t always get duals where we would expect them. Sometimes we get plural forms with a dualic subject, cf. Meillet (1908). This illustrates that the dual was rapidly declining in Gothic as well.

inherited from the verb system of PIE and was a part of the early Proto-Germanic verb system (see 2.3.3.10).

### 2.3.1.2 *Tense*

The biggest formal change between PIE and the Proto-Germanic verb system is the reduction of categories, especially in the formal representation of tenses or aspects. Verbs in Germanic conform to a system which has only two basic tenses, present tense and past or preterite tense which is a far cry from the PIE verb system which had at least six to seven separate formal aspects/tenses.

The Germanic verb system shows a formal distinction between two types of verbs, i.e. “strong” and “weak” verbs. The strong verbs show their tense formation by different ablaut grades of the root vowel and their preterite has certain features reminiscent of the PIE perfect formation. The change in ablaut pattern they display continues the PIE way of distinguishing categories. The weak verbs on the other hand show their tense formation by maintaining the same root vowel quality but add dental suffix in the preterite.<sup>9</sup> This tense formation is unknown from PIE and is a Germanic innovation.<sup>10</sup>

### 2.3.1.3 *Mood*

Besides the indicative mood which functions in the same way as in the Proto-language Germanic has another major mood we call optative here. It is also frequently referred to as subjunctive in the literature. In PIE both optative and subjunctive moods existed as formally and functionally distinct categories but in Germanic they have been merged into one. The formative morphology of this mood in Germanic is derived from

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<sup>9</sup> There are a few examples of Germanic weak verbs that form a preterite by adding a dental suffix directly to the root, i.e. without a stem vowel, e.g. Gothic pres. *briggan* vs. pret. *brāhta*. Some of these appear to show a different root vowel quality in preterite vs. present, due to secondary phonological or analogical development (cf. Prokosch 1939:199-204).

<sup>10</sup> Generally the weak preterite is considered to originate in a periphrastic construction. Such constructions which later univerbate into a “normal” looking stem-suffix-ending verb form are known from many of the Indo-European languages.



the formative suffix of the optative in PIE, i.e.  $*-ieh_1$  (see Table 2.2-2). The mood is therefore more related to the PIE optative in strictly formal terms, whereas the use of the mood coincides with use of a typical subjunctive mood in other Indo-European languages. The label here of this mood as an ‘optative’ rather than a ‘subjunctive’ is thus based on the morphological origin which is more relevant to the overall topic of this work, and is solely a matter of personal preference.

The development of the optative from PIE into PG is not linear, i.e. the PIE present optative formation does not continue directly as such into Germanic according to the same “morphological recipe”. The same can be said about the preterite optative in Germanic which does not directly continue a PIE formation. The present optative in Germanic is formed by an addition of a  $*-ai$  suffix which reflects PIE  $*-o\acute{i}$ . In PIE this is not a suffix but the optative formation of thematic verbs with the addition of the zero grade of the regular optative suffix added to a thematic verb stem. In Germanic the thematic vowel in the *o*-grade has become to be interpreted as a part of the suffix and this new suffix has been generalized to include all types of verbs.

The preterite optative formation in Germanic points to a suffix  $*-ī$  which continues PIE  $-i\acute{h}_1$  which is the zero grade of the athematic optative. This suffix has been generalized in Germanic to include all types of verbs, including the preterite of the new category of weak verbs.

The imperative mood is also continued in Germanic. Imperative forms are only found in the present (indicative, active) and not in all persons and numbers. The second person forms in the plural have fallen together with the indicative forms. The second person singular forms can be traced back to their PIE ancestors with some analogical remodeling taking place along the way. The 1<sup>st</sup> person plural forms are optatives in origin. The third person forms are only found in Gothic and are somewhat problematic as will be discussed in section 2.3.3.9 below.

#### 2.3.1.4 Voice

There is every indication that Proto-Germanic preserved the formal distinction between active voice and (medio)-passive voice. The category of passive voice has been functionally taken over by other kinds of formations in all the Germanic languages by the time they are written down except for Gothic. In this language this category was preserved but the use of this inflection seems to be strictly passive in meaning. The inflectional passive forms are frequently used in the Gothic bible texts (cf. Braune/Heidermanns 2004:141, 155-157). However the formation is not a full-fledged verbal category as some of the inflectional distinction was lost. The forms are found only in present indicative and optative and no dual forms are attested in the preterite. In the other Germanic languages the category has all but vanished, but some remnants are found limited to alternative forms of the verb ‘to be called’ (PG *\*haitan-*) in Old Norse and Old English (cf. Krahe/Meid 1969b:114-115).<sup>11</sup> The conclusion must be that the PIE medio-passive formation survived into the Proto-Germanic period, but declined as a category in all the sub-branches and eventually got replaced by other formations.

#### 2.3.2 The morphological components of a finite verb form

Having established the formal categories of the reconstructed verb system we can now look at what morphological components are present and how a typical finite form of the verb is constructed.

The main morphological feature of the verb system is the division between strong and weak verbs. These are further subdivided into different types or classes as will become clear in the discussion below. The strong verbs are divided up into seven major classes

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<sup>11</sup> In Old Norse the verb *heita* has two conjugational patterns in the singular of the present tense which are semantically distinct. The regular one is: 1<sup>st</sup> *heit*, 2<sup>nd</sup> *heitr*, 3<sup>rd</sup> *heitr* meaning ‘call’ or ‘invoke’. The other pattern is 1<sup>st</sup> *heiti*, 2<sup>nd</sup> *heitir*, 3<sup>rd</sup> *heitir* meaning ‘is called’. The latter pattern can be derived by regular sound law from reconstructed PIE medio-passive morphology, c.f. section 2.3.3.11.

according to their ablaut patterns. The weak verbs are divided up into three to four classes according to their inflectional characteristics, mostly based on the present stem vowel formant. Since weak verbs will play a larger role than strong ones in the following discussion it will be mentioned here that the main distinction among the weak verbs is based on their final stem vowel and is between so called *ja*-verbs (1<sup>st</sup> class), *ō*-verbs (2<sup>nd</sup> class) and *ē*-verbs (3<sup>rd</sup> class).<sup>12</sup> Other verb groups include the preterite-present verbs which show a mix of the strong and weak verbs as well as a handful of anomalous verbs, including the verb ‘to be’, which don’t conform to any of the main groups. The particulars of this system are quite intricate and will not be discussed in any detail here. I will refer to any handbook on Germanic linguistics for further discussion on this subject, (cf. Streitberg (1896), Hirt (1931), Prokosch (1939), Krahe/Meid (1969b), Bammesberger 1986)).

Other aspects of the Germanic verbal system indicate a significant change from PIE. The present stem formation types which we mostly associate with our groupings of weak verbs are a consolidation of various Indo-European types and the strong verbs also preserve other old PIE present formations. It would require significant detour from the main focus of this work to discuss these in detail so I refer to handbooks on Germanic linguistics as well as Indo-European for the details of this development of the verb system from PIE to PG.

A Germanic finite verb form is typically composed of a number of morphological components that reflect morphological processes that ultimately can be traced back to PIE. The basic component is the root which is usually followed by various suffixes such as the stem type suffix (more so with weak verbs than strong ones) and by the mood and/or tense formation suffixes. The final component of the verb form is the

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<sup>12</sup> The *ja*-verbs are usually further divided into *ja*- and *ija*-verbs in line with the variation which results from Siever’s Law. Furthermore there is a 4<sup>th</sup> class of weak verbs, so called *nan*-verbs (cf. Fullerton 1971). The characteristic vowel of the 3<sup>rd</sup> class was possibly earlier *-ai* if we assume that its origin lies in the recategorization of perfect middles, cf. Jasanoff 2003).

ending that indicates person and number. A finite verb form will always have a root and an ending, but might not have any parsable suffixes due to some secondary phonological development.

The root itself behaves differently in strong and weak verbs. Weak verb roots have only a single vowel grade but in case of strong verbs the root can have up to four different ablaut grades to help signal tense and number.<sup>13</sup> The strong and weak verbs also differ in terms of endings. Although we find the same endings for both types of verbs in the present tense these are not the same in the preterite tense.

The building blocks of the finite verbs can be better demonstrated through examples. Gothic is the most archaic Germanic language and therefore the morphological components of forms are often more easily identifiable compared to other Germanic languages. As an example we take the Gothic 1<sup>st</sup> person plural preterite weak verb form *salbôdêdum* ‘we anointed’. This form consists of four components: root + stem vowel + preterite suffix + ending, or *salb+ô+dêd+um*.

This Gothic example is transparent, as we can parse the form into its original morphological components. In many cases this is not possible and can be a cause of confusion as secondary developments have often obscured the boundary between the different components that make up a verb form. The Old Norse form 3<sup>rd</sup> pers. sg. *kallar* vs. 3<sup>rd</sup> pers. pl. *kalla* is an example of this. In the singular form the *a* has to be a stem vowel followed by the regular 3<sup>rd</sup> sg. ending *-r* and reflects the same long *ō*-formant we find in the Gothic form above (PG *\*kall-ō-zi*.) The plural form has a final *a* that on the surface could be taken to reflect the same *ō*-formant but then we would have to analyze the form as having a *ø*-ending or no ending at all. Comparison with other weak verb classes can be misleading. The *ja*-verb forms 3<sup>rd</sup> pers. sg. *heyrir* vs. pl. *heyra*, where the stem vowel is characteristically an *i*, shows us that in this class the

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<sup>13</sup> There are a few exceptional weak verbs that also appear to show vowel alternation, cf. previous footnote.

*a* does not reflect a stem vowel in the plural form but rather should be taken as 3<sup>rd</sup> pl. ending. We could therefore assume the same for the 2<sup>nd</sup> class and presume that the origin of third plural is in PG *\*kall-anþi* rather than *\*kall-ō-nþi*. However it is likely in this case that the vowel of the ending is ultimately not derived from the same source in both verb classes. This illustrates that the individual morphemes are not easily recognizable, or even can be erroneously identified when we take into account secondary phonological and morphological development.

### 2.3.3 Endings

In general the verb endings we find in Germanic can be accounted for as being ultimately derived from Proto-Indo-European. We can trace the particular verb endings of Germanic to corresponding reconstructed endings we find in the proto-language although we have to account for the special innovation and the consolidation of categories in Germanic. Before we go any further we should consider the following overview of endings attested in the oldest Germanic languages.

#### 2.3.3.1 Strong verbs – present indicative

It is necessary to separately discuss the strong verbs and the weak verbs as they exhibit some fundamental differences in line with their different morphological origin. First we shall take a look at the present indicative of strong verbs. An overview of this category is given in table Table 2.3-2.

**Table 2.3-2**

<b>Sing.</b>	<b>Gothic</b>	<b>ON<sup>14</sup></b>	<b>OE</b>	<b>OS</b>	<b>OHG</b>	<b>PG</b>
<i>1<sup>st</sup></i>	binda	bind	binde	bindu	bintu	*bindō
<i>2<sup>nd</sup></i>	bindis	bindr	bindes(t)	bindis	bintis	*bindiz(i)
<i>3<sup>rd</sup></i>	bindip	bindr	bindeð	bindið	bintit	*bindið(i)
<b>Plur.</b>						
<i>1<sup>st</sup></i>	bindam	bindum	bindað	bindað	bintumēs	*bindam(e)z
<i>2<sup>nd</sup></i>	bindip	bindið	bindað	bindað	bintet (-at)	*bindið(i)
<i>3<sup>rd</sup></i>	bindand	binda	bindað	bindað	bintant	*bindanð(i)/ *bindanþ(i)

The PG verb endings originate as the primary thematic endings of the present/aorist in PIE discussed in section 2.2.3.1. The endings in general follow regular developments in each of the daughter languages. A few of the forms need some additional remarks.

In ON we have 1<sup>st</sup> person zero ending from an earlier *-u* < \*-ō. The older form *-u* is attested in Runic inscriptions (Krause 1971:121-122). The development of PG\* *-ō* to OE *-e* cannot reflect the regular phonological development as the expected outcome would be *-u*. Even though this ending is the most common one in OE there are certain OE dialects that show the expected ending *-u* while the *e*-ending is considered analogical from the subjunctive (optative) (Campbell 1974:298).

The second person ending shows a regular development in all of the daughter languages. The only exception from this is the *t*-ending in Old English which is secondary and shows the influence of a following 2<sup>nd</sup> person enclitic pronoun in inverted forms (Campbell 1974:297).

In contrast to the other languages the third person singular in ON is *-r*. It is generally believed that the second person ending *-r* < PN \*-R has replaced the third person *-þ*

<sup>14</sup> The Old Norse forms here are given in regular standardized orthography is different from the orthography found in various handbooks. The biggest difference is found in the apparent quality of the unaccented vowels which instead of *e* and *o* are shown as *i* and *u*. These two spelling traditions reflect essentially the same sounds and do not indicate a sound change (cf. Benediktsson 1972:147-150).

ending by analogy as is evident from our oldest attestations of verb forms on Runic inscriptions.<sup>15</sup> Otherwise the development is regular.

The plural forms of OE and OS have undergone significant analogical leveling. The plural forms are the same for all persons and the actual form continues the regular development of the 3<sup>rd</sup> person plural form, i.e. the 3<sup>rd</sup> person plural form has spread by analogy to the 2<sup>nd</sup> person and the 1<sup>st</sup> person. This is true for all other tenses and moods as well where we find the same coalescence of the plural forms.

A special attention should be given to the development of the 1<sup>st</sup> person plural ending *-m* going back to PG *\*-m(e)z*. It is clear that the OHG form is the odd one out as the regular development cannot account for the ending *\*-mēs* in this language. Some alternative explanation is required. The matter is quite complicated as will become clear in the subsequent sections of this study. It is not clear what the quality of the linking vowel was in oldest form of OHG. The preserved texts show great variation (cf. 3.5.1 below). The development of the regular ending *-m* from PG is also not totally transparent and is discussed in section 3.3.1 below.

In the 3<sup>rd</sup> person plural we need to assume that two alternate forms existed in the period of PG, i.e. *\*-and* and *\*-anþ*. These alternating consonants can be explained by Verner's law which traces the development of consonants to different accent patterns in PIE. The contrast between Gothic *bindand* and ON (*binda* < *\*bindan* < *\*bindann* < *\*bindanþ*) indicates this. Such pairs show that in the period of early PG the accent could fall on either the root or the ending, depending on the verb class and the resulting alternations were then leveled out in different ways within the daughter languages.

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<sup>15</sup> We have both *briutiþ* and *briutiR* in two Swedish runic inscriptions from the Proto-Norse period. The latter form is attested in a slightly younger inscription and thus we can assume that the old third person ending *-þ* survived into the common North-Germanic period and the innovative ending *-r* replaced it in the late Runic period (cf. Noreen 1970:356).

### 2.3.3.2 Strong verbs – preterite indicative

As has been mentioned the Germanic preterite of strong verbs is generally considered to continue the PIE perfect formation. This category in PIE was characterized by certain morphological features such as reduplication and an ablaut alternation between an *o*-grade and a zero grade e.g. Skr. 1<sup>st</sup> p. sg. *vavárta* vs. 1<sup>st</sup> p. pl. *vavṛtimá*.<sup>16</sup> It is clear that the Germanic strong preterite does not continue the classic recipe for the PIE perfect, as is noticeable by the absence of the reduplication for all but a handful of strong verbs. The question about the status of reduplication in Germanic preterite and the uniqueness of the so-called 7<sup>th</sup> class of strong verbs will not be dealt with here. However the ablaut alternations and some of the endings we find show that there must be a connection between the PIE perfect and the Germanic preterite.

**Table 2.3-3**

<b>Sing.</b>	<b>Gothic</b>	<b>ON</b>	<b>OE</b>	<b>OS</b>	<b>OHG</b>	<b>PG</b>
<i>1<sup>st</sup></i>	baup	bauð	bēad	bōd	bōt	*bauð(a)
<i>2<sup>nd</sup></i>	baust	bautt	bude	budi	buti	*bauðst(a)
<i>3<sup>rd</sup></i>	baup	bauð	bēad	bōd	bōt	*bauð(e)
<b>Plur.</b>						
<i>1<sup>st</sup></i>	budum	buðum	budon	budun	butum (butumēs)	*buðum(e)
<i>2<sup>nd</sup></i>	budup	buðuð	budon	budun	butut	*buðuð(e)
<i>3<sup>rd</sup></i>	budun	buðu	budon	budun	butun	*buðun

The daughter languages all point to a rather uniform situation in PG. At the same time it is clear that the reconstructed endings of PG are not entirely derivable from the PIE set of endings discussed in section 2.2.3.2. There is also some inconsistency in the forms of the reconstructed endings in PG as different scholars have different opinions on this matter (e.g. the reconstructions of Bammesberger 1986 vs. the reconstructions of Krahe/Meid 1969b). The status of the final vowels as a part of the common PG

<sup>16</sup> The *o:zero* alternation of the perfect is not absolute. There is some indication that the perfect employed *o:e* alternation at its earliest stage (cf. Jasanoff 2003:42-43). Some classes of verbs in Germanic show an alternation which seems to reflect PIE *o:ē*.



inheritance is not entirely clear. The vowels must have been present at the earliest stage of Proto-Germanic but probably were lost before the establishment of the Germanic sub-branches. They are not necessary to explain the situation in the daughter languages.

The first and third person singular reflect a regular development of the PIE perfect endings through PG down to individual Germanic languages. The biggest deviation from the PG reconstructed ending to an attested ending is the West Germanic second person singular. The regular development can be seen in North and East Germanic where the dental of the 2<sup>nd</sup> person singular is preserved. The West Germanic form on the other hand exhibits what appears to be a different ablaut grade of the root (same as the plural forms) and a different ending as well.

There are two main schools of thought on how best to explain this. One is to assume that this is an actual remnant of an aorist formation in Germanic, a category that is otherwise lost. This would be an example of a thematic aorist, and comparable with Greek type ἔλιπον from λείπω. A Germanic form *\*tugi(z)* could be traced straight back to PIE *\*duk-e-s* (Bammesberger 1986:47). The most obvious problem with this scenario is the lack of this formation in the preterite-present verbs. This class of verbs is morphologically odd in that the present tense is comparable with the strong preterite and is formally identical to it. In West-Germanic the preterite present 2<sup>nd</sup> person singular has a regular *t*-ending, e.g. OHG *darft* ‘needs’. This indicates that the regular preterite 2<sup>nd</sup> person ending in these languages is not an old inheritance but rather a more recent innovation (cf. Polomé 1964).

If the 2<sup>nd</sup> person singular ending in West Germanic is a recent innovation we need to pursue a different explanation of the origin of this ending. The best alternative is to derive the form from the preterite optative. However this requires assuming some additional processes as it is clear that this is not just a case of the regular form simply being taken over by the indicative. The regular preterite 2<sup>nd</sup> sg. optative form in OHG,

as e.g. *butīs* from *biotān* ‘offer’. The lack of a final sibilant in the active ending leads us to seek a Proto-Germanic explanation of accent alternation, or perhaps preferably, the presence vs. absence of the final *i* in the ending, i.e. PG 2<sup>nd</sup> sg. opt. *\*buðīsi* vs. 2<sup>nd</sup> sg. ind. *\*buðīs*. Alternatively it is possible to consider the preterite optative having undergone some secondary processes, whereby it acquired a final *-s*, after the 2<sup>nd</sup> sg. ending had spread to the indicative (cf. Bammesberger 1986:47-48, Polomé 1964:879). There is some evidence for the optative having acquired its final *-s* relatively late. We have a few attestations of the phrase *a ni curi* which is a 2<sup>nd</sup> person sg. prohibitive optative of the verb *kiosan* used as a negative imperative (Braune/Reiffenstein 2004:272). This form is best taken as an *s*-less relic form frozen in this particular meaning and not having participated in the general remodeling of the 2<sup>nd</sup> sg. optative. This suggests that the *-s* of the regular 2<sup>nd</sup> person forms is secondary. The plural forms are somewhat more difficult to consolidate with the PIE situation. As was discussed in section 2.2.3.2 the perfect endings in the 1<sup>st</sup> and 2<sup>nd</sup> plural are not confidently reconstructable. When looking at the 1<sup>st</sup> person ending we may consider two possibilities. One is the traditional view where the ending is reconstructed as PIE *\*-me* and thus the same as the regular secondary present/aorist ending. The other possibility is that the ending is best categorized as PIE *\*-meH* with a final laryngeal. The outcome of these two variants in PG would be *\*-me* and *\*-mē* respectively. Looking at the attested endings in the Germanic languages it is likelier that the ending was *\*-me* and the final vowel was subsequently lost. After the final *-e* is dropped, the *-m* seems to have become a syllabic *-m̥*, at least in some cases. This syllabic nasal then regularly gives *\*-um* in PG (Krahe/Meid 1969b:105). This would not be as neatly explained if we assumed the shape of the ending to be *\*-mē* to begin with. If this were the case we would not expect the final *\*-ē* to drop, thus facilitating the condition for the nasal to syllabify. Some alternative views concerning the origin of this ending and

the connection between the present and preterite 1<sup>st</sup> person plural endings is discussed further in section 3.3.2.

As was mentioned in section 2.2.3.2 it is problematic to reconstruct the 2<sup>nd</sup> person plural ending for the perfect category in PIE. In the traditional scheme of reconstructed endings illustrated by table Table 2.2-6 the reconstructed perfect ending is *\*-te*, indistinguishable from the corresponding present/aorist ending. We also mentioned the possibility of the ending *\*-(H)e* as being the most archaic form of the 2<sup>nd</sup> plural perfect ending. The expected outcome of the reconstructed endings in Germanic would be *\*-þ(e)* or *\*-ð(e)* on the one hand and *\*-e* or *\*-ø* on the other. With these possibilities in mind it is not clear how best to account for the Germanic ending. It seems clear we can exclude the second option, i.e. tracing the ending back to *\*-(H)e*. If we assume that the ending goes back to *\*-te* it seems likely that the *u*-vocalism in Germanic is best explained as analogical influence of the 1<sup>st</sup> and 3<sup>rd</sup> plural. It has also been suggested that the Germanic ending traces its origin to the aorist formation (cf. Krahe/Meid 1969b:106), but that is not straightforward.

The 3<sup>rd</sup> person plural ending cannot be traced back directly to its reconstructed PIE perfect counterpart, *\*-ēr*. Here we have to assume some secondary development in the pre-history of Germanic. Indications are that the Germanic ending goes back to a secondary ending *-nt* which after a consonant (i.e. athematic) will have had the form *-nt* and developed to *-un* with the dental dropping word finally in Germanic (cf. Krahe/Meid 1969b:108). This could be seen as a remnant of aorist formations as well (Prokosch 1939:163-164), although that has to be considered less likely than the alternative.

As is evident from the discussion above it is not unproblematic to derive the Germanic strong verb preterite directly from the PIE perfect. It is clear that this category has undergone various secondary developments, especially when it comes to the plural endings. There is some evidence that can be used to argue that the perfect has been

influenced by other categories that did not survive into the period of Proto-Germanic, such as the aorist. However, the instances where such explanations have been suggested are not very convincing and essentially unnecessary.

#### 2.3.3.3 *Weak verbs – present indicative*

Unlike the strong verbs where different verb classes show the same fundamental development of endings it is necessary to distinguish between different verb classes when discussing the endings of the weak verbs. This is due to the fact that the development of the endings is slightly different between the classes.

The weak verbs in Germanic fall into three or four classes. There are three classes well attested in all Germanic languages. The fourth class is only attested in Gothic and is probably indicative of a Gothic innovation rather than a PG relic (cf. Fullerton 1971).<sup>17</sup> The difference between the other three weak classes is reflected in their individual characteristic stem final vowel which points to different origins in PIE. There is some difference between the classes of weak verbs with regard to their development from PIE and the forms in the daughter languages. For the purpose of the discussion here we do not need to go into all the particulars but will look at one class of verbs in somewhat greater detail and supplement the discussion with examples from other verb classes where necessary.

The examples in Table 2.3-4 show the forms of the 2<sup>nd</sup> class of weak verbs also called the *ō*-verbs. This class illustrates better than others the issues at hand.

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<sup>17</sup> The verbs that constitute the fourth class of weak verbs in Gothic are characterized by a *na*-suffix often labeled as “inchoative”. These types of weak verbs are also prominent in Old Norse, but do not constitute a separate class of verbs but form a sub-group of the larger class of *ō*-verbs.

**Table 2.3-4**

<b>Sing.</b>	<b>Gothic</b>	<b>ON</b>	<b>OE</b>	<b>OS</b>	<b>OHG</b>	<b>PG</b>
<i>1<sup>st</sup></i>	salbō	kalla	sealfie	salbon	salbōm	*salbōiō
<i>2<sup>nd</sup></i>	salbōs	kallar	sealfas	salbos	salbōs	*salbōz(i)
<i>3<sup>rd</sup></i>	salbōþ	kallar	sealfað	salbod	salbōt	*salbōþ(i)
<b>Plur.</b>						
<i>1<sup>st</sup></i>	salbōm	kollum	sealfiað	salbod/salboiad	salbōmēs	*salbōm(i)z
<i>2<sup>nd</sup></i>	salbōþ	kallið	sealfiað	salbod/salboiad	salbōt	*salbōþ(i)
<i>3<sup>rd</sup></i>	salbōnd	kalla	sealfiað	salbod/salboiad	salbōnt	*salbōnð(i)/ *salbōnþ(i)

The endings are more or less the same as the ones found in the present indicative active of the strong verbs discussed in section 2.3.3.1. All the language specific comments apply here as well. A few words are needed about the individual forms, especially the first person singular ones.

In OHG the 1<sup>st</sup> person singular ends in an *-m* and the 1<sup>st</sup> person singular *-n* in OS also indicates that the ending had a final nasal. This is contrary to the forms we find in Gothic and ON. This contrast is indicative of a presence of an athematic ending *\*-m* (cf. the discussion in 2.2.3). It is likely that this shows analogical influence from athematic verbs rather than the athematic origin of this particular verb class, and most likely goes back to the influence of PG *\*dōm* ‘I do’ on the 2<sup>nd</sup> class of weak verbs (cf. Cowgill 1959:11). The 1<sup>st</sup> person singular athematic verb ending, PIE *\*-mi*, did survive into Germanic but the athematic verbs themselves are not preserved as clearly defined class of verbs. The presence of individual athematic verbs as well as the morphology of the verb ‘to be’ shows clearly that such verbs were part of the inventory of Proto-Germanic and were inherited from PIE. This is discussed in section 2.3.3.12.

It is in the 1<sup>st</sup> person singular we find the biggest differences between the different classes of weak verbs. The 1<sup>st</sup> person singular of 1<sup>st</sup> class of weak verbs, i.e. *ja*-verbs, in West Germanic, does not have the same ending as the 2<sup>nd</sup> class verbs. The

corresponding forms here show the expected *u*-ending we find in the strong verbs in these languages as well as the weak classes in the other sub-branches of Germanic (e.g. OS *fremmiu* and OHG *frummiu*). The same applies to the third class of weak verbs, i.e. the *ē*-verbs but here the individual West-Germanic languages do not agree. In OE and OS the *ē*-verbs align with the *ja*-verbs, whereas in OHG we have the *m*-ending in this class of verbs as well (i.e. OS *hebbiu* vs. OHG *habēm*).

The two types of forms found in the plural in OS can possibly indicate a difference between athematic and thematic forms as well, i.e. 3<sup>rd</sup> plural *\*-ō-nti* vs. *\*-ō-īonti* (cf. Krahe/Meid 1969b:123). The alternative longer forms more likely indicate analogical influence from the *ja*-verb forms (like *fremmiad*) where the forms are the result of a regular development (cf. Cowgill 1959:8-10).

#### 2.3.3.4 Weak verbs – preterite indicative

The following table shows the reconstructed forms and examples of the attested forms from the Germanic languages.

**Table 2.3-5**

<b>Sing.</b>	<b>Gothic</b>	<b>ON</b>	<b>OE</b>	<b>OS</b>	<b>OHG</b>	<b>PG</b>
<i>1<sup>st</sup></i>	nasida	talða	nerede	nerida	nerita	*naziðōn
<i>2<sup>nd</sup></i>	nasidēs	talðir	neredes	nerides	neritōs	*naziðēz
<i>3<sup>rd</sup></i>	nasida	talði	nerede	nerida	nerita	*naziðē
<b>Plur.</b>						
<i>1<sup>st</sup></i>	nasidēdum	tǫlðum	neredon	neridun	neritum	*naziðēðum(e)
<i>2<sup>nd</sup></i>	nasidēduþ	tǫlðuð	neredon	neridun	neritut	*naziðēðuð(e)
<i>3<sup>rd</sup></i>	nasidēdun	tǫlðu	neredon	neridun	neritun	*naziðēðun

The form of the OHG 2<sup>nd</sup> person singular requires some commentary. It is clearly not a direct descendant of the PG form. It is explained as an result of analogical extension of the first person vocalism, i.e. already in early OHG, while we still had 1<sup>st</sup> person in *-ðōn* and second person in *-ðēz* the *ē* of the second person was influenced by the 1<sup>st</sup> person *ō*, which resulted in change of the 2<sup>nd</sup> person vowel from *ē* to *ō* (cf.

Krahe/Meid 1969b:124-125). This long *ō* later spread to other forms in the OHG dialect of Alemannic (ibid), (cf. section 6.4.10).

The connection between the reconstructed Germanic forms and any PIE morphological category is shrouded in mystery as this formation does not have any direct cognates in other Indo-European languages. As mentioned above, the formation of the weak preterite is one of the characteristic innovations of Germanic languages. The origin of the weak preterite remains somewhat unclear and many different hypotheses have been put forth throughout the history of comparative Germanic linguistics which seek the origin of this formation in various morphological elements inherited from PIE (cf. Tops 1972).

It is often assumed that the weak preterite of Germanic is related to the PIE perfect formation (cf. Krahe/Meid 1969:127-129). The strongest evidence for this conclusion is the existence of reduplicated forms in the plural in Gothic. However the details are somewhat murky and other categories are possible contenders as well (Bammesberger 1986:85-87).

A common explanation that links together the perfect connection of the weak preterite with the morphological situation in the Germanic languages involves a verbal element of some sort plus the past (or perfect) tense of the PIE verbal root *\*dheh<sub>1</sub>-*/*\*dhoh<sub>1</sub>-* which is the basis of the PG verb *\*ðōn* ‘to do’. This verb is also inherited as an independent verb in East and West Germanic but in North Germanic it has become extinct as such. This idea was first put forth by Von Stade in the 18<sup>th</sup> century but has later been developed and elaborated on by Hirt (1931), Lehmann (1943a & b), Hermann (1948), and others (see Tops (1972:12-44) on a variety of derivations). This is the opinion most often encountered in the handbooks (e.g. Krahe/Meid (1969b:127-129)), although the details are somewhat unclear.

The latest contribution to this discussion involves deriving the Germanic weak preterite directly from the PIE category of perfect middle (Jasanoff 2003:44-45). This

latest view brings into play evidence from Runic inscriptions where we have what appears to be 3<sup>rd</sup> person singular weak preterite forms with a diphthongal ending, such as *talgidai* ‘he carved’,<sup>18</sup> which is found in an inscription from Nøvling, dated about year 200 (Krause 1971:158). This form is difficult to derive from a PG ending *\*-ðē*, but the diphthong in the ending goes well with a late middle ending PIE *\*-oi*.

Even though the idea of a periphrastic construction involving the verb *\*dheh<sub>1</sub>-*/*\*dhoh<sub>1</sub>* explains away most of the Germanic weak preterite forms, there are some problematic forms that cannot easily be traced to such a formation and require more attention. This has led many scholars to explore alternative theories of origin, which involve morphological elements containing a PIE *\*t* rather than a *\*dh*. I refer again to the discussion in Tops (1972:44-86) for a critical overview of the bulk of these theories.

Although the origin of the Germanic preterite is a controversial matter, it is not central to the issue at hand here. The Proto-Germanic forms as we reconstruct them based on the evidence from the daughter languages are fairly certain and do not need much commentary. They all agree on the same PG origin. The main difference is the presence vs. absence of reduplication in Gothic vs. the other languages. It is not clear whether we should assume both reduplicated and unreduplicated forms existed in PG or if the West and North Germanic languages have undergone some secondary process or analogical development. The status of reduplication in the Germanic preterite suffix of weak verbs is ambiguous. It is clear that some groups of strong verbs had a reduplicating prefix in PG whereas others did not.

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<sup>18</sup> It is also possible that this alleged *ai*-ending of this inscription does not exist at all. The interpretation of this particular word form as a 3<sup>rd</sup> person singular form as showing a final diphthong has been challenged by various scholars and thus it must be used with great caution (see Grønvik 1990, Stoklund 1991 for alternative interpretations).



### 2.3.3.5 Strong verbs – present optative

We now move to the optative endings. The formation is discussed in section 2.3.1.3. The set of endings is different from the indicative forms and can be derived from the PIE secondary endings discussed in section 2.2.3.

**Table 2.3-6**

<b>Sing.</b>	<b>Gothic</b>	<b>ON</b>	<b>OE</b>	<b>OS</b>	<b>OHG</b>	<b>PG</b>
<i>1<sup>st</sup></i>	bairau	bera	bere	bere	berē	*berai <sub>u</sub> n
<i>2<sup>nd</sup></i>	bairais	berir	bere	beres	berēs	*berai <sub>z</sub>
<i>3<sup>rd</sup></i>	bairai	beri	bere	bere	berē	*berai
<b>Plur.</b>						
<i>1<sup>st</sup></i>	bairaima	berim	beren	beren	berēm	*beraim(e)
<i>2<sup>nd</sup></i>	bairaiþ	berið	beren	beren	berēt	*beraið(e)
<i>3<sup>rd</sup></i>	bairaina	beri	beren	beren	berēn	*berain

The present optative formation in Germanic shows the generalization of the PIE optative formant *\*-oi-* which receives the regular present/aorist secondary endings (cf. 2.2.3.1). This formant develops regularly to a PG *\*-ai-* and this diphthong is then regularly monophthongized to an *ē/e* in all the Germanic languages with perhaps the exception of Gothic.<sup>19</sup>

The 1<sup>st</sup> person singular ending PG *-un* reflects the development of a syllabic *-m̥* which was a vocalic variant of the regular secondary ending *-m* and known from other IE languages (e.g. Arcadian ἐξελαόνοια with the final *α* reflecting the same syllabic nasal (Krahe/Meid 1969:110). This form then loses the intervocalic *i*, the final nasal is lost and the result is the endings in North and East Germanic. The West Germanic forms indicate a secondary development of the ending *-ai<sub>u</sub>n* such as analogical influence from the preterite optative (cf. Bammesberger 1986:94).

The development of the second person singular forms seem at first glance to point to two variant endings existing in the PG period. The ON and the OE point to a voiced

<sup>19</sup> The digraphs *ai* and *au* in Gothic are usually interpreted to represent monophthongs even though historically they often go back to diphthongs (cf. Braune/Heidermanns 2004:38-46).

final sibilant whereas the OS and OHG go back to a voiceless one (Krahe/Meid 1969:111). We prefer to avoid this problem by assuming that the voiceless final sibilants are secondary (this was mentioned in section 2.3.3 and is also discussed in section 3.3.1), probably analogical from the indicative ending. The third person singular forms all point to the same PG origin with the regular development of PIE final *-t* which is dropped in Germanic.

The plural forms reflect the regular outcome of the secondary endings in PG. The only exception is the Gothic 1<sup>st</sup> and 3<sup>rd</sup> plural. Some secondary factors must come into play with regard to these forms. Both 1<sup>st</sup> person plural *-aima* and 3<sup>rd</sup> person plural *-aina* show the addition of a particle of unknown origin (Bammesberger 1986:94). Possible sources of this particle are discussed in section 3.4.2 below.

#### 2.3.3.6 Strong verbs – preterite optative

The preterite optative is similar in structure to the present optative. The main difference is that the vocalism of the root shows a different ablaut grade from the present. The ablaut grade involved is the same as is found in the preterite plural indicative, i.e. zero grade or lengthened grade, depending on the class of strong verbs. This category also shows a generalization of a single PIE formant, in this case *-ī-* which is then followed by the secondary endings.

**Table 2.3-7**

<b>Sing.</b>	<b>Gothic</b>	<b>ON</b>	<b>OE</b>	<b>OS</b>	<b>OHG</b>	<b>PG</b>
<i>1<sup>st</sup></i>	bērijau	bæra	bære	bāri	bāri	*bērīn
<i>2<sup>nd</sup></i>	bēreis	bærir	bære	bāris	bārīs	*bērīz
<i>3<sup>rd</sup></i>	bēri	bæri	bære	bāri	bāri	*bērī
<b>Plur.</b>						
<i>1<sup>st</sup></i>	bēreima	bærim	bæren	bārin	bārīm	*bērīm(e)
<i>2<sup>nd</sup></i>	bēreiþ	bærið	bæren	bārin	bārīt	*bērīð(e)
<i>3<sup>rd</sup></i>	bēreina	bæri	bæren	bārin	bārīn	*bērīn

The first person singular in Gothic and Old Norse shows analogical influence from the present optative. The long vowel *\*ī* causes *i*-umlaut in Old Norse. Otherwise the development of the forms is the same as there.

#### 2.3.3.7 *Weak verbs – present optative*

Some of the issues involved here are the same as discussed in section 2.3.3.3. There is some difference in forms between the various classes of weak verbs. The first class of weak verbs shows same sort of formation as the strong verbs. The second class does however differ in some basic ways.

**Table 2.3-8**

<b>Sing.</b>	<b>Gothic</b>	<b>ON</b>	<b>OE</b>	<b>OS</b>	<b>OHG</b>	<b>PG</b>
<i>1<sup>st</sup></i>	salbō	kalla	sealfi(g)e	salbo(ie)	salbo	*salbōjajun
<i>2<sup>nd</sup></i>	salbōs	kallir	sealfi(g)e	salbos	salbōs	*salbōjaiz
<i>3<sup>rd</sup></i>	salbō	kallir	sealfi(g)e	salbo(ie)	salbo	*salbōjai
<b>Plur.</b>						
<i>1<sup>st</sup></i>	salbōma	kallim	sealfi(g)en	salbon/salboian	salbōm	*salbōjaim(e)
<i>2<sup>nd</sup></i>	salbōþ	kallið	sealfi(g)en	salbon/salboian	salbōt	*salbōjaið(e)
<i>3<sup>rd</sup></i>	salbōna	kalli	sealfi(g)en	salbon/salboian	salbōn	*salbōjain

The main problem here is that the optative formant is no longer visible in the majority of forms found in the daughter languages. Here we have to assume a process of contraction of vowels took place which resulted in the formant disappearing. The contractions in this class of verbs is best accounted for by Cowgill (1959), which traces these verbs back to a regular thematic PIE type *-āīē/-āīō*-presents. These verbs are thematic which have been analogically influenced (cf. also the discussion in 2.3.3.12). Alternative view based on tracing these verbs to athematic optative formant in *\*-ī* is found in Krahe/Meid 1969b:130). This approach does not have any advantages over Cowgill's view.

The individual forms here don't require extensive comments. It should be noted that the ON forms have undergone analogical development from the 1<sup>st</sup> class of weak verbs and show no trace of the \**ō*.

#### 2.3.3.8 Weak verbs – preterite optative

The preterite optative formation of the weak verbs is basically the same as the preterite optative formation of the strong verbs. The endings are the same. Of course we don't find any ablaut alternation of the stem.

**Table 2.3-9**

<b>Sing.</b>	<b>Gothic</b>	<b>ON</b>	<b>OE</b>	<b>OS</b>	<b>OHG</b>	<b>PG</b>
<i>1<sup>st</sup></i>	nasidēdjau	telōa	nerede	neridi	neriti	*naziðēðīn
<i>2<sup>nd</sup></i>	nasidēdeis	telōir	nerede	neridis	neritīs	*naziðēðīz
<i>3<sup>rd</sup></i>	nasidēdi	telōi	nerede	neridi	neriti	*naziðēðī
<b>Plur.</b>						
<i>1<sup>st</sup></i>	nasidēdaima	telōim	nereden	neridin	neritīm	*naziðēðīme
<i>2<sup>nd</sup></i>	nasidēdaiþ	telōið	nereden	neridin	neritīt	*naziðēðīðe
<i>3<sup>rd</sup></i>	nasidēdaina	telōi	nereden	neridin	neritīn	*naziðēðīn

As in the strong verbs the \**ī* also causes umlaut in ON. In Alemannic a special development has occurred, similar to the spread of *ō* in the present indicative (cf. 2.3.3.4). There is a difference between the endings of strong and weak verbs with weak verbs showing a short final *-i* in the 1<sup>st</sup> and 3<sup>rd</sup> singular whereas weak verbs have a long final *ī*-vowel, e.g. Notker *nāme* (< *nāmi*) vs. *suohtī* (Braune/Reiffenstein 2004:272). The weak verbs have been influenced by the long vowel in the second person form, and perhaps also by the spread of long vowel in the indicative. No further commentary on individual forms is needed. The main language specific forms and developments have been discussed in previous sections.

### 2.3.3.9 Imperative forms

The imperative forms in Germanic distinguish themselves most clearly in the 2<sup>nd</sup> person singular. In the 2<sup>nd</sup> person plural the forms have fallen together with the regular present indicative forms. Table 2.3-9 shows the forms for the strong verbs.

**Table 2.3-10**

<b>Sing.</b>	<b>Gothic</b>	<b>ON</b>	<b>OE</b>	<b>OS</b>	<b>OHG</b>	<b>PG</b>
2 <sup>nd</sup>	bair	ber	ber	ber, bir	bir	*ber
3 <sup>rd</sup>	bairadau					

The 2<sup>nd</sup> person singular form is simply the stem of the verb which reflects the regular development of a final thematic ending *-e* to zero. In Old Saxon and Old High German the form has a tendency to show *i*-umlaut under analogical influence from the 2<sup>nd</sup> sg. indicative (Krahe/Meid 1969:113).

A special 3<sup>rd</sup> person imperative form is only known from Gothic. This form is not easily explained as it is hard to derive it directly from PIE imperative forms. A common view is to look at these forms as going back to the future imperative, i.e. *\*-tōd* plus the emphatic particle *-u* (cf. Prokosch 1939:215-216 and Boutkan 1995:327). The formation might then be considered as blending of the future imperative endings and the regular imperative endings which were often reinforced with this same emphatic *u*-particle.

The weak verbs in general show the same kind of formation as the strong verbs. The 2<sup>nd</sup> person singular form shows the bare stem of the verb which includes the stem vowel characteristic of each class of weak verbs. In Gothic 1<sup>st</sup> class of weak verbs the 2<sup>nd</sup> sg. imperative form end in *-ei* for both short and long stem verbs, which is a result of analogy from the long stems.

The weak verbs also show the only preserved example of Gothic of 3<sup>rd</sup> plural imperative form. This form shows the ending *-andau* (Braune/Heidermanns 2004:165) and can be explained in the same way as the 3<sup>rd</sup> singular form discussed above.

#### 2.3.3.10 Gothic dual endings

The dual has largely been left out of the discussion above and dual forms are not included in the tables with the reconstructed verb endings. As has been mentioned the category of dual is not well preserved in Germanic and in the verb system we only have the last remnants of attested in Gothic 1<sup>st</sup> and 2<sup>nd</sup> person forms. The verbal dual in Germanic is thus a grammatical phenomenon specific to Gothic and therefore inner-Germanic comparison of forms is impossible. Although this fact makes it hard to infer the situation in PG, the fact that it exists in Gothic makes it clear that this category was present in the common period. The Gothic dual endings are listed in

Table 2.3-11 below.

**Table 2.3-11**

Dual.	Pres. ind.	Pres. opt	Pret. ind.	Pret. opt.
1 <sup>st</sup>	-ōs	aiwa	-u	(-eiwa)
2 <sup>nd</sup>	-ats	aits	-uts	-eits

The dual forms can be reconstructed for PIE. The secondary and primary endings of the first person are for the present/aorist *\*-ue* and *\*-ues*. The corresponding endings for the second person are *\*-tom* and *\*-th<sub>2</sub>es*. It is however quite problematic to trace the Gothic forms directly back to these preforms.

The first person present form in Gothic seems to indicate irregular contraction of *\*-oues* to *\*-ōs*. It has been pointed out that this is contrary to the development of *u*-stems where a similar sequence of sounds in the genitive singular *\*-ous* yielded *-aus* in Gothic. These two endings should have fallen together (Brugmann 1909:165). To avoid this apparent problem it has been postulated that the vowel in the verb ending

might have undergone a secondary analogical lengthening from the  $\bar{o}$ -ending in the 1<sup>st</sup> person singular followed by a syncope in closed syllables which would make this derivation somewhat more plausible (Boutkan 1995:319-320 apud Jones 1979:351). The explanation is far from neat and can hardly be considered satisfactory. It clearly illustrates the problems in deriving this Gothic ending from PIE. Boutkan (1995) considers this the best available explanation of the Gothic forms but discounts the dual endings in his account of unaccented vowels in Germanic.

The second person present form can't be derived from its alleged PIE preform either, without accounting for certain special developments. We would expect the PIE  $*t$  to develop to Gothic  $\bar{b}$ . It is however possible to assume that some analogical development took place based on stems that ended in certain consonants or in  $*-s$  which would have prevented the  $t$  from shifting to  $\bar{b}$  in exactly these forms ( $sp$ ,  $sk$ ,  $st$ ,  $ht$  and  $ft$  did not shift) as is suggested by Krause (1968:261). This would have taken place before the generalization of the stem vowel, e.g. a form such as pre-Gothic 2<sup>nd</sup> dual present of the preterite-present verb PG  $*\bar{p}urfan-$  i.e.  $*\bar{p}urf-t(e)z$  'you two need' would have maintained the  $t$  of the ending and then later be remodeled to  $\bar{p}aurbutz$ . These unshifted endings then spread by analogy to other forms.

An alternative approach assumes a special sound law here whereby PIE  $*ts$  remains  $ts$  in PG and explain apparent contrary evidence by analogy, such as Gothic noun nom. sg. masc.  $stapz$  'place' (Boer 1924:239). This has to be considered highly unlikely. The  $-a$  in the present ending also indicates an analogical spread of the  $*o$  thematic vowel from the 1<sup>st</sup> and 3<sup>rd</sup> persons (Krause 1968:261). Another entirely different explanation seeks to derive this ending not from the PIE dual ending but an enclitic form of the numeral 'two', i.e. PIE  $*duo$  (Schmidt 1974). This approach apparently solves the problems discussed but creates new ones (Boutkan 1995:320). If this is the case we might expect the same element to show up in the 1<sup>st</sup> person. It would also entail that the dual endings would be a Germanic or Gothic innovation and unrelated

to the PIE dual. Such a view would require a revision of the Germanic verbal system as a whole, which seems hardly warranted.

The dual preterite endings are not as well attested as the present endings. A 1<sup>st</sup> person form in *-u* is only found in a present form of the preterite-present verbs and can be derived from the secondary ending PIE *\*-ye*. (Krause 1968:260). The 2<sup>nd</sup> person dual preterite ending, *-uts* shows further spread of the *u*-vowel from 1<sup>st</sup> and/or 3<sup>rd</sup> person plural plus the same ending we find in the present, which is traced back to the PIE primary ending. The different origin of the endings (i.e. primary vs. secondary) is indicative of the problematic reconstruction of the dual forms of the PIE perfect category and the limits of reconstruction of special perfect endings.

The optative forms show the same characteristic stem formant of both the present and preterite optative and this has been discussed in previous sections. The preterite optative forms are not attested in the 1<sup>st</sup> person (Braune/Heidermanns 2004:148) The personal endings illustrate the different origins. The 2<sup>nd</sup> person ending is derived from the same primary ending whereas the first person ending is attested as *-wa*. This ending is likely a reflection of the secondary ending *\*-ye* but must have undergone some secondary development, lengthening or addition of a particle of unknown origin. It falls into the same group of endings as the 1<sup>st</sup> and 3<sup>rd</sup> person plural optative which also exhibit the same kind of extension (discussed in sections 2.3.3.5, 2.3.3.6 and 3.4.2).

The discussion above refers both to strong and weak verbs as there is no difference between the two in the examples that we have attested from Gothic. For many types of weak verbs dual forms are missing including the entire 2<sup>nd</sup> class, (cf. Krahe/Meid 1969b:122, 123).



### 2.3.3.11 Gothic passive endings

As the most archaic Germanic language Gothic has preserved aspects of the PIE verbal system that are almost completely lost in other branches of Germanic. The Gothic reflex of the PIE medio-passive is a reduced paradigm, which shows a limited number of forms and consolidation of meaning. The meaning of the attested forms is passive. There are only three distinct inflectional endings, two are found in the singular and one in the plural. The passive is only found in the present indicative and optative. The endings are shown in

Table 2.3-12.<sup>20</sup>

**Table 2.3-12**

Passive	Pres. ind.	Pres. opt	Pret. ind.	Pret. opt.
1 <sup>st</sup> / 3 <sup>rd</sup>	-a-da	-ai-dau		
2 <sup>nd</sup>	-a-za	-ai-zau		
Plural	-a-nda	-ai-ndau		

The Gothic 1<sup>st</sup> person singular form is likely a result of secondary development. There are indications that alternative inflected forms of the ON verb *heita* ‘to be called’, with passive meaning, continue the Germanic 1<sup>st</sup> person (medio)-passive ending. The form is *heiti* which would go back to Germanic *\*haitai*. This form is easier to consolidate with the PIE evidence and is likely reflective of the original state of affairs in Germanic. The second and third person forms seem to go back to Germanic *\*-sai* and *\*-tai* respectively so all the singular forms can be traced back to the primary endings of the medio-passive discussed in 2.2.3.1. The *a*-vowel in all forms is indicative of the *o*-grade of the thematic vowel being analogically spread (Krahe/Meid 1969:115).

The plural is somewhat harder to account for. The third person plural form seems to be a continuation of the primary medio-passive ending as well. The 1<sup>st</sup> person plural can

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<sup>20</sup> The *a* vowel immediately preceding the ending is found in strong verbs and weak verbs classes 1, 3 and 4. In the second class of weak verbs the vowel is *ō* in both indicative and optative, e.g. 1<sup>st</sup> person *-ōda* and *-ōdau* respectively.

perhaps also be taken as a direct continuation of a PIE ending *\*-med<sup>h</sup>h<sub>2</sub>* which would have been remodeled with the addition of *-i* from influence of the other forms. We can assume the laryngeal vocalizes to an *a* so the result would be an ending *\*-med<sup>h</sup>ai*, which would give *\*-miđai* or *\*-amiđai* in its thematic form in PG. Lühr (1978:111) assumes this development from a preform *\*-omed<sup>h</sup>oi*, which ends up as *\*-amđai* in Germanic after a syncope and would be the immediate ancestor of Gothic *-anda* with nasal assimilation. This would have caused the 1<sup>st</sup> and 3<sup>rd</sup> person forms to be homophonous.

The problem remaining is the 2<sup>nd</sup> person form which Lühr traces back to PIE *\*-ed<sup>h</sup>uoi* which becomes in Early Gothic *\*iduai* and then is analogically remodeled to *\*-adai*, based on the other forms in *-dai* and generalization of the thematic vowel. This form subsequently adopts the plural marker *-n*, resulting in the form *-andai*, to make it distinct from the singular which it otherwise would have fallen together with (Lühr 1978:114). The main problem with this approach is the last stage, i.e. why a 2<sup>nd</sup> person plural would avoid homophony with a 3<sup>rd</sup> person singular by adopting a morphological element which makes it homophonous with both 1<sup>st</sup> and 3<sup>rd</sup> person forms of the plural. Obviously avoiding homophony is not a big motivational factor in that scenario.

Boutkan (1995) assumes a similar end result but arrives at it by employing a process of analogy. He assumes that the PIE ending *\*-ed<sup>h</sup>ue* was remodeled to *\*-ot(e)o*, based on analogy with the 2<sup>nd</sup> and 3<sup>rd</sup> singular endings *\*o-s-o* and *\*o-t-o* (Boutkan 1995:329). The idea here appears to be that the synchronic difference between the passive and active forms is simply the *o*-vowels on each side of a secondary ending. However this approach has no advantage over Lühr's idea and the end result is the same with the addition of an *n*-element.

The process Lühr describes seems to be more plausible although it is not entirely problem free. It seems plausible to derive the 2<sup>nd</sup> person plural form from PIE *\*-ed<sup>h</sup>uo* with the addition of the element *i* in early PG. The generalization of the thematic

vowel occurred also in PG resulting in the form *\*-aðūai*. With the phonological end result being the 1<sup>st</sup> and 3<sup>rd</sup> person forms are homophonous and the 2<sup>nd</sup> person is differentiated only by the lack of *n*, it is very likely that analogical leveling would occur. The 1<sup>st</sup> and the 3<sup>rd</sup> person form influenced the 2<sup>nd</sup> person form resulting in the same form for all numbers in the plural. Although such processes are not common in Gothic we have the same kind of process occurring in all plural forms in OS and OE (cf. 2.3.3.1).<sup>21</sup>

The optative forms are likely a result of secondary development within PG or Gothic itself. The stem element is the same as in the active and is the regular in all forms. The last vowel of the ending *-au* is not obviously explainable. It either exhibits an analogical spread of the 1<sup>st</sup> person ending or is adapted after 3<sup>rd</sup> person imperative forms like *haitadau* where it could reflect PIE *\*-tōu*. The optative forms may therefore be “transitive middle endings with lengthening of *\*-o* before the added particle *\*-u*” (cf. Boutkan 1995:330). The bottom line is that this formation is rather unclear.

#### 2.3.3.12 Remnants of athematic verbs

PIE had an important distinction between athematic and thematic verb endings which was clearly visible in the 1<sup>st</sup> person singular form (cf. the discussion in 2.3.3.3). The majority of verbs in Germanic show thematic traits, i.e. presence of a thematic vowel before the ending and *ō*-ending in the 1<sup>st</sup> person singular. There are some exceptions to this. The verb ‘to be’ shows clear characteristics of an inherited athematic verb morphology, i.e. the endings are added directly to the root and the 1<sup>st</sup> person singular

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<sup>21</sup> As an alternative phonological approach we might postulate that the short vowel underwent a process of ‘spontaneous nasalization’ before the consonant cluster, which then was simplified and the nasality was subsequently realized as a independent phoneme, i.e. *\*-aðūai* > *\*-ǣðūai* > *-andāi*. The result was a form homophonous with the other plural forms. The process of spontaneous nasalization is a well known phonetic/phonological process in the world’s languages and is usually associated with low vowels preceding high friction consonants (cf. Ohala & Anador 1981). Even though the conditions here are perhaps not the most conducive to such a development, this provides a way to explain why Gothic passive would have given up its distinction of person and number, which is very robust in other categories.

present indicative form ends in an *-m*. Other such verbs include the verb ‘to do’ and a few others (cf. Krahe/Meid 1969b:139-145).

The verb ‘to be’ has a variety of forms in the Germanic languages and reconstructing a common Germanic verbal paradigm is difficult. There are at least three verbal roots involved which have different distribution in the daughter languages. The 1<sup>st</sup> person singular forms are the following: Got *im*, ON *em*, OE *ēom* and *bēom*, OS *bium/biun* and OHG *bim/bin*. From this we can see that the North and East Germanic show forms based on PIE *\*h<sub>1</sub>es-* where as West Germanic generally has forms descending from PIE *\*bhuh<sub>2</sub>-*. The athematic origin of this verb is also visible in the present optative forms where the regular formant is *-ī* and not *-ai*, e.g. Got *sijau*, ON *sjá*, OE *sī*, OS *sī* and OHG *sī*. Gothic and ON have clearly added endings analogically.

The other athematic verbs are only preserved in West Germanic as independent verbal paradigms. The verb ‘to do’ from PIE *\*dhē/\*dhō* is the most prevalent of those but we also have athematic forms forming a partial paradigm of the verbs ‘go’ and ‘stand’ (e.g. OHG *gān* and *stān*). The 1<sup>st</sup> person sg. forms of the verb ‘to do’ are OE *dō(m)*, OS *dōm* and OHG *tuon* (*tuom*). There are some further problems associated with these verbs but those are addressed and discussed in the handbooks (Prokosch 1939, Krahe/Meid 1969 etc.).

The athematic 1<sup>st</sup> person ending has a wider distribution in West-Germanic and especially in OHG, where it includes 2<sup>nd</sup> and 3<sup>rd</sup> class of the weak verbs. It has been debated whether these endings point to an original PG state of affairs or whether they illustrate some secondary development within OHG where the athematic ending has spread from proper athematic verbs to include the weak verbs as well. A prevailing idea is that the 2<sup>nd</sup> class verbs, which are usually denominative from a stem in *-ā*, had two types of conjugations in PG, i.e. thematic one in *-je/o* + endings and an athematic one, where the endings were added directly to the *-ā*. This theory dates back to

Streitberg (1892) and is discussed in Cowgill (1959:3-9) who puts forth a contrary viewpoint addressing this matter.

According to Cowgill (1959) the athematic traits of the 2<sup>nd</sup> class of weak verbs are secondary. He supposes a thematic origin of these verbs but regular sound laws have obscured the picture. He assumes that PG *-j-* was lost after vowels of non-initial syllables other than *\*i*. The result was a series of vowel contractions which regularly account for the forms in the daughter languages. Cowgill then has to assume that the subsequent development in West-Germanic was secondary. The longer forms, such as OS *salboiad* (cf. the discussion in 2.3.3.3) are analogically formed after the 1<sup>st</sup> class of weak verbs (Cowgill 1959:8). The *m*-ending of the 1<sup>st</sup> person singular in OHG is then also secondary and is explained as influence from the proper athematic verb ‘to do’ which is preserved as an independent verb in West Germanic. This was a common verb and shares the phonological feature of *-ō* with 2<sup>nd</sup> class of weak verbs. The analogical spread was further motivated by providing a morphological distinction between the indicative and the optative which otherwise would have fallen together (cf. Cowgill 1959:11). The conditions for such an analogical spreading of the 1<sup>st</sup> person singular form did not arise in the other Germanic branches as the verb ‘to do’ was not preserved as an independent verb (ibid). The analogical spread of this ending then continued from the 2<sup>nd</sup> class to the 3<sup>rd</sup> class of weak verbs. This scenario seems to adequately account for the West Germanic situation.

## **2.4 Summary and conclusion**

In this section we have outlined the verb system of PIE and PG and sketched out the main features of its development from the most ancient ancestor language to a more recent one. We have observed that the verb system of PG is quite different from the one of PIE and includes a variety of innovation and reassignment of morphological elements. The endings discussed so far and their representation in each of the

Germanic daughter languages illustrates the main features of their verbal systems. We have also noted that there are endings that do not conform to the system we have outlined but these can usually be explained by secondary processes.

One of the more remarkable features of the attested endings in the daughter languages is the situation of the 1<sup>st</sup> person plural forms in OHG. In this language we find more than one ending, the expected *m*-ending and the more obscure *mēs*-ending. Unlike most of the alternative or irregular endings this does not seem to be a relatively recent innovation. As is evident from the tables in section 2.3.3, we have two variants of the 1<sup>st</sup> person plural ending already in the oldest period. It is important to notice that Old High German is the only Germanic language where we observe this sort of variation and the longer 1<sup>st</sup> person plural form, the *mēs*-form, is unique to that particular language, or group of dialects.

OHG was not the only language to exhibit a peculiar form of the 1<sup>st</sup> person plural. We also have encountered the Gothic 1<sup>st</sup> person plural optative ending in *-ma*, which cannot be easily explained either. The derivation of this Gothic ending from PG and PIE requires some additional morphological element which cannot be accounted for in an obvious manner. As the only representative of the long extinct Eastern branch of Germanic, Gothic is only preserved in one particular text and does not exhibit any dialectal features.<sup>22</sup> Therefore no postulations can be made about the distribution of this ending in that language. However the Gothic ending *-ma* along with OHG *-mēs* might point to a complex situation in the stage of Proto-Germanic where there were at least two and perhaps three competing endings associated with the 1<sup>st</sup> person plural verb category (i.e. Proto-Germanic *\*-mez/miz*, and the ancestors of Goth. *-ma* and OHG *-mēs*).

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<sup>22</sup> The main source of Gothic language is a sixth century manuscript, “Codex Argenteus”, which contains a bible translation which dates back to the fourth century. The other sources are the Skeireins texts which are only a few pages and don’t indicate any significant diversion from the language of the main text. Some inscriptions have also been identified but are of less significance (cf. Braune/Heidermanns 2004:6-15).

It therefore seems that further exploration of the 1<sup>st</sup> person plural forms is a fruitful way to better figure out the situation in the earliest stage of Germanic and to see whether it might give us any clues about the development of the system of endings and the verb system in general. In the following section we will take a look at the origins of 1<sup>st</sup> person plural forms and try to establish the inventory of material at our disposal when looking for an explanation for the situation in Germanic and more specifically in OHG.

## 3 1<sup>st</sup> person plural

### 3.1 Introduction

In the previous section we presented the PIE verbal system and the different elements that survived into Germanic as well as the verbal endings in the ancient Germanic languages. We found the 1<sup>st</sup> person plural endings to be of particular interest and exhibit a certain degree of variety which warrants a closer look. We will now proceed to discuss this category in particular and investigate curious 1<sup>st</sup> person plural forms in Indo-European and Germanic. We will then move on to the situation in OHG specifically and different theories about the origin of the odd ending *-mēs*.

### 3.2 Indo-European

We have already discussed the reconstructed endings for various grammatical categories in PIE. From these reconstructions we would like to be able to derive the endings found in the daughter languages. Yet there are still some endings attested that do not conform well to the system as it has been outlined. In most cases these extra endings can be explained through some secondary development in certain branches but we need also to consider the possibility that there were some additional endings around in PIE that were somehow outside the system discussed in section 2.

#### 3.2.1 Primary endings

Our reconstructed primary ending *\*-mes* is arrived at by considering the comparative evidence from the different branches of Indo-European languages. The attested endings of the first person plural in present/aorist, indicative, active are not without complications and the reconstructed form is not as straightforward as we would like.



Let us consider the attested endings in the various Indo-European language branches. Table 3.2-1 lists the endings used in the present indicative amongst the major daughter languages.<sup>23</sup>

**Table 3.2-1**

<b>1<sup>st</sup> person plural primary endings</b>			
<i>Vedic</i>	-mas(i)	<i>OCS</i>	-mŭ
<i>Av.</i>	-mahi	<i>Lith.</i>	-me
<i>Hittite</i>	-weni	<i>Toch.</i>	-mäs <sup>24</sup>
<i>Greek</i>	-men/mes	<i>Arm.</i>	-mkʻ
<i>Latin</i>	-mus	<i>Old Ir.</i>	-m
<i>Gothic</i>	-m		

(cf. Szemerényi 1990:248 and Villar 1974:392)

The majority of the languages point to an ending *\*-me* or *\*-mo* usually followed by *\*s*. The prevalence of forms with a back vowel has prompted some scholars to reconstruct the ending as *\*-mos* or assume that there were two forms of this ending already in PIE, i.e. *\*-mes* and *\*-mos*. Alternations between *o* and *e* ablaut grades are a known morphological feature of PIE and this could indeed be the explanation for this alternation. However it would be better if we could reconstruct a single ending. If we believe that the basic form of the ending in PIE was *\*-mes* we need to assume some secondary processes that changed the quality of the vowel. One possibility would be to simply assume a very early sound change of unaccented *e* in closed syllables to *o* (cf. Hirt 1900:156, Jasanoff 2003:57). This sound rule has proven useful to account for *o* ~ *e* alteration in unaccented syllables (cf. the difference between the perfect and middle singular endings discussed in section 2.2.3.2). Each of these two variants of the same ending would then have been generalized in individual daughter languages.

Some of the attested endings cannot be derived directly from a PIE *\*-mVs* and require further explanation.<sup>25</sup> The first striking thing we notice is that in Hittite and in Indo-

<sup>23</sup> Some later Indo-Iranian languages show 1<sup>st</sup> person plural forms that cannot easily be linked to the reconstructed PIE endings (see Gray 1927:78-79). These will not be discussed in detail here.

<sup>24</sup> The ending in Toch. A is *-mäs* from PIE *\*-mesi* whereas the ending in Toch. B is *-m(o)* from PIE *\*-mes* (cf. Krause 1960:259).

Iranian the endings have added an *i*-element. The presence of this additional *i* is rather easily explained. The *i*-element, which is a characteristic feature of the primary endings in the singular and 3<sup>rd</sup> person plural, must have spread from these forms to the 1<sup>st</sup> person plural by an analogical process (Szemerényi 1990:249). This additional element was also present in Tocharian B where *-mäš* has to be from PIE *\*-mesi*. The Old Irish ending may also go back to such a form. The further extension of final *-i* seems also to have occurred in Anatolian.

Greek and Hittite have endings containing a second nasal element *-n*. This is perhaps the feature that is most difficult to incorporate into the reconstructed system presented in section 2.2. The fact that this ending is found in two distinct branches may suggest that there was some uncertainty regarding this particular verb ending from the earliest times and perhaps more than one competing ending already in PIE. Alternatively the *n*-element might represent a coincidental parallel secondary development in each of the two branches. These possibilities will be explored further in sections 3.2.3-3.2.7.

### 3.2.2 Secondary endings

The secondary endings show the same kind of differences as the primary endings. In the categories where we would expect a secondary ending we find the endings shown in Table 3.2-2.

**Table 3.2-2**

<b>1<sup>st</sup> person plural secondary endings</b>			
<i>Vedic</i>	-ma	<i>OCS</i>	-mu
<i>Av.</i>	-ma	<i>Lith.</i>	-me
<i>Hittite</i>	-wen	<i>Toch.</i>	-mäš <sup>23</sup>
<i>Greek</i>	-men/mes	<i>Arm.</i>	-mk <sup>7</sup>
<i>Latin</i>	-mus	<i>Old Ir.</i>	-m
<i>Gothic</i>	-m(a)		

(cf. Szemerényi 1990:248 and Villar 1974:392)

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<sup>23</sup> The symbol *V* in *-mVs* stands for the vowels *e* and *o*.

Many of the languages cited above have what appears to be on the surface the same ending functioning as both primary and secondary ending, or more specifically: For those categories of the verb where we would expect difference between primary and secondary endings we do not find any. This points to some phonological or analogical developments later in their history. As a result we must give extra weight to those languages that clearly show a distinction between two sets of endings, especially Indo-Iranian. We also can see that different branches have generalized different endings, e.g. Lithuanian *-me* is originally a secondary ending that has been generalized to take on the role of the primary ending and Latin *-mus* shows a primary ending which has been generalized into taking on the role of the secondary ending in the same manner. The evidence thus suggests that the primary ending was *\*-mes/(\*-mos)* and secondary ending *\*-me*. Some scholars prefer to reconstruct an alternative secondary ending, PIE *\*-men*, (cf. Meier-Brügger 2003:178-179), based on the evidence from Greek and Anatolian. There are some indications that such an ending was part of the PIE inventory and perhaps it has left its mark outside these two branches. We will now take a closer look at the endings that are at odds with the general reconstructed endings.

### 3.2.3 *The n-ending in Greek*

In Greek we encounter two 1<sup>st</sup> person plural endings, *-μες* and *-μεν*. (*-mes* and *-men*). The distribution of these endings is dialectal, the *mes*-ending is limited to the Doric dialect and the *men*-ending is found in all other dialects where such a form is attested (Rix 1992:243-244). The Greek verbal system does not show a distinction between primary and secondary endings in the 1<sup>st</sup> (and 2<sup>nd</sup>) person plural. It is clear that the *mes*-ending in Doric is the inherited primary ending so it is likely that the *men*-ending is a result of remodeling. We might then assume that Doric generalized the inherited

primary ending, *\*-mes* and the rest of the Greek dialects generalized the inherited secondary ending *\*-me* with some additional morphology.

If the Greek ending goes back to the regular secondary ending *\*-me*, the additional final *-n* needs to be accounted for. There are several different potential origins and quite a few different opinions on how this nasal extension of the ending might have come into being.

One possible analogical source of this final *-n* is that it shows influence from the 3<sup>rd</sup> plural which also can have a final *-n*. This has led to reconstruction of a PIE 3<sup>rd</sup> plural secondary ending in *\*-e/on*, i.e. without the final *-t* to explain the Greek ending (Shields 1982:200). However this creates unnecessary complications. The Greek 3<sup>rd</sup> person ending in *-n* is generally considered to be the regular outcome of the secondary ending PIE *\*-nt* (cf. Rix 1992:244). The analogical extension idea could perhaps be salvaged if we assume that it would have taken place relatively late in Greek, i.e. after the loss of the final *-t*. This origin however has to be considered rather unlikely as the distribution of 1<sup>st</sup> and 3<sup>rd</sup> person plural endings in final *-n* is quite different.<sup>26</sup>

Another attempt to explain the origin of this ending seeks to trace it back to a middle ending in *-m* (Cohen 1979:109-110). According to this view Greek 1<sup>st</sup> person plural middle ending *\*-μεθα* (*-metha*) goes back to a PIE *\*-med<sup>h</sup>u<sup>m</sup>*, a zero grade of *\*-med<sup>h</sup>uom*, which survives in Greek as the 1<sup>st</sup> person dual middle *-μεθον* (*-methon*). The final nasal was then generalized to the active to give the regular ending *-men*. Further origin of this ending is a little less clear. Cohen states that it is a result of 2<sup>nd</sup> pl. ending being attached onto a 1<sup>st</sup> person plural ending, which implies that the regular secondary ending *-me* must have acquired *\*-d<sup>h</sup>uom* or *\*-d<sup>h</sup>u<sup>m</sup>* from the 2<sup>nd</sup> person plural. These endings are not easily compatible with the general view of PIE

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<sup>26</sup> The 3<sup>rd</sup> person plural has final *-n* in the imperfect and aorist indicative active forms whereas in the present and future indicative active forms it ends in *-si*. This reflects the distinction between secondary ending *-nt* vs. primary ending *-nti*. The 1<sup>st</sup> person plural has final *-n* in all categories (cf. Rix 1992:239-266).

endings we have argued for.<sup>27</sup> There are also numerous problems with this scenario, especially the motivational factors of the leveling processes both from the 2<sup>nd</sup> to 1<sup>st</sup> person as well as from middle to active which are not explained in detail. This view is also hard to maintain in light of the evidence we have of the middle endings from other branches of PIE which suggests that the shape of the reconstructed ending was *\*-med<sup>h</sup>h<sub>2</sub>*, i.e. without any final nasal (cf. section 2.2.3.1 above).

There have been some attempts to link the *men*-ending to the so-called “movable *n*” phenomenon in Greek. This phonological occurrence is especially common in Attic-Ionic dialects of Greek. In various forms in those dialects we have a final *n* that is not immediately explainable by comparative evidence. The idea is that the final *n* might have spread from grammatical forms where it was inherited such as the pronominal dative in Attic 1<sup>st</sup> person ἡμῖν (*hēmin*) ‘to me’ and from there it continued to spread to the dative plurals such as φύλαξι(ν) (*phylaxi(n)*) ‘to the guards’ and then further to verb forms such as 3<sup>rd</sup> person plural present indicative λέγουσι(ν) (*legousi(n)*) ‘they say’ (Sihler 1994:232-233). The final *n* then continued its expansion from these 3<sup>rd</sup> person plural forms to the 1<sup>st</sup> person plural.

There are several problems with this scenario. First of all the so-called “moveable *n*” is indeed movable, which means it does not always appear in all forms. The 1<sup>st</sup> person plural final *-n* is invariant in those dialects where it exists (cf. Sihler 1994:464). The second problem is that the “moveable *n*” is to a large extent limited to Attic-Ionic whereas the 1<sup>st</sup> person plural ending is known from various other dialects (ibid.). The bottom line is that the final *-n* of the 1<sup>st</sup> person plural endings seems to behave quite differently from cases of “moveable *n*” and therefore likely has a different origin.

An alternative analogical scenario was first suggested by Brugmann (1916) and involves the 1<sup>st</sup> person plural being influenced by a 1<sup>st</sup> person dual in *\*-fēv*. This

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<sup>27</sup> Cohen tries to link this ending to the 2<sup>nd</sup> person middle dual ending in Indic *-dhvam*. This ending is limited to Indo-Iranian and the final *-am* in has been explained as a particle (cf. Watkins 1969:128-129).

ending is unattested in Greek but was a result of analogical leveling in the dual after the attested endings of the other persons, 2<sup>nd</sup> person -τον and 3<sup>rd</sup> person -ταν (Brugmann 1916:618). The main problem with this theory is that the 1<sup>st</sup> person dual active is not attested in Greek so this requires a hypothetical intermediate step that we otherwise do not have any evidence for. It should however be mentioned that Greek has preserved 1<sup>st</sup> person dual middle forms that show a final -n, (cf. the discussion of Cohen 1979 above), which might be relevant.

Another analogical scenario is first suggested in Sommer (1918:65). Here we consider, besides the dual, another possible source of the final nasal within the conjugational system. The regular outcome of the 1<sup>st</sup> singular secondary ending PIE \*-m in Greek is -n. We might then assume that this ending has been extended to the 1<sup>st</sup> person plural ending (cf. also Rix 1992:244). The problems with this idea is mainly that the distribution of the 1<sup>st</sup> sg. forms in -n is limited to certain categories and it is difficult to imagine how such an analogical spread from 1<sup>st</sup> sg. to 1<sup>st</sup> plural would have taken place.<sup>28</sup>

As we observe from this short overview it is clear that this verb ending in Greek is difficult to account for. Of the different possibilities mentioned here the analogical extension of the 1<sup>st</sup> singular or the 1<sup>st</sup> dual has a slight advantage. We can assume the final -v being reinterpreted as general 1<sup>st</sup> person marker, but not as a plural marker, since it is lacking in the 2<sup>nd</sup> person plural. The matter is somewhat problematic as it is hard to see the motivating factor for such an analogical change, i.e. it does not seem to be necessary for any other persons.

The ideas discussed so far mostly try to explain this ending by drawing on Greek or pre-Greek phonological and morphological phenomena. The biggest counterargument against all of these ideas is the fact that we have what looks like same sort of ending in

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<sup>28</sup> Cohen (1979:109) mentions the lack of any parallels in other languages for such analogical extension.

Hittite 1<sup>st</sup> person plural. This suggests that this first person plural ending with a final *-n* is an old feature of the verb system of the protolanguage which was inherited in both Greek and Anatolian. Before we discuss alternative solutions we will take a look at some Anatolian verb forms and then revisit the Greek situation.

#### 3.2.4 *The n-ending in Anatolian*

The Anatolian endings show the greatest deviation from the reconstructed primary ending. None of the reconstructed elements are present there and it seems a hopeless endeavor even to attempt to derive Hittite *\*-weni* from PIE *\*-mes*. Therefore we must seek alternative solutions.

The Hittite ending contains a *w*-element which is probably the same as we find in the PIE dual ending *\*-ues*. The dual is not a feature of the Hittite verb system. This can either mean that the dual has been lost as a category but formally continued in plural meaning, or alternatively that the Hittite verb system reflects such an archaic stage that the *\*-ues* element had not yet gotten the specialized meaning of dual as it later did in other branches. This latter view adds complications to our reconstructed PIE verbal system without really shedding light on the function of PIE *\*-ues* and its relation to PIE *\*-mes*. We shall therefore consider the *w* in the ending *-weni* as a relic of dual morphology.

The *n*-element is somewhat harder to account for. It is perhaps possible to explain the Hittite form by assuming that the dual played a part here as well. We could consider that a process where *n* was generalized from the 2<sup>nd</sup> and 3<sup>rd</sup> person similar to what Brugman (1906) did to explain the Greek ending. This theory of origin would then have added support if we have evidence for it in two branches and perhaps it can then be attributed to an early process that already took place in late PIE.

Another way of linking the verbal endings in Greek and Anatolian and trace them back to the same source is to reconstruct a PIE ending *\*-men* which would be an

alternative secondary ending, which existed along with the regular secondary ending *\*-me* (cf. Szemerényi 1990:249). Postulating such an ending could account for both the Anatolian and the Greek evidence. The main problem with this solution is that it disrupts the rather regular pattern between primary and secondary endings we have observed. In the 1<sup>st</sup> person plural we would suddenly have three endings, *\*-mes*, *\*-me* and *\*-men*. It is also unclear if there was a difference in use and/or meaning between these two secondary endings in the proto-language. Perhaps the final nasal was a “reinforcing element”, which is also found in pronouns in Indic, such as Skr. *ahám*, *tuvám* etc. (cf. Kuryłowicz 1964:153), but the support for this does not seem very strong. Reconstructing such an ending is therefore not feasible unless we find some extra evidence to support it.

It is also possible that the similarities between the Greek and Anatolian endings are a result of a later analogical processes that occurred separately in both branches. Hittite has a 1<sup>st</sup> person singular ending in *-n* which continues the secondary ending *\*-m*, so this could be the source of a further extension of a final nasal to the 1<sup>st</sup> plural. We might also consider some of the alternative approaches to derive the Anatolian endings from hypothetical endings for which we otherwise lack good evidence, such as 3<sup>rd</sup> plural *\*-e/on* and 1<sup>st</sup> plural middle *\*-med<sup>h</sup>um*, but such maneuvers seem implausible and also require a drastic reevaluation of the PIE system we have argued for. Other analogical sources, or any kind of a moveable *n* which is unknown in Hittite, are not immediately obvious.

The results from our examination of the 1<sup>st</sup> person plural ending in Anatolian show that encompasses morphological material usually associated with the dual category, and most probably shows analogical influence from the dual to the plural. This is added support to explain the Greek ending along the same lines.



### 3.2.5 Vedic ending *-mā*

There is some evidence from Indo-Iranian that might play a part in the discussion of alternative 1<sup>st</sup> person plural endings. In Vedic we allegedly have two alternate secondary endings, *-ma* and *-mā*. The former is the regular secondary ending and can be traced back to PIE *\*-me* without any difficulty. The longer ending *-mā* is found in certain positions in particular Vedic hymns (about 5% of total examples of all first person plural secondary endings (Sihler 1994:463).

One way to account for this alternative secondary ending *-mā* is to link it to the question of the *n*-element discussed above. It is possible to derive this ending *-mā* from a reconstructed alternative secondary ending PIE *\*-mem*, which would also give the desired outcome in Anatolian and Greek. The derivation does require a special nasal dissimilation rule as *-m* does regularly survive in final position as is evident from dual forms in Vedic, i.e. 2<sup>nd</sup> person *-tam* and 3<sup>rd</sup> person *-tām* (Sihler 1994:464). This sound development seems ad hoc and without parallel in Indo-Iranian. Therefore the evidence for this origin of the ending *-mā* does not seem very strong.

This ending *-mā* can be better accounted for in our general scheme of the reconstructed verb system outlined in section 2.2.3. There we discussed possible reconstructions of the 1<sup>st</sup> person plural perfect ending. Our two possibilities were *\*-me* and *\*-meH*. The first alternative is no different from the regular present/aorist secondary ending. The second option points to a distinct perfect ending. When we take a closer look at these examples for the ending *-mā* it turns out these long *mā*-endings are largely limited to perfect forms (cf. Arnold 1905:112). Therefore it seems that we are not looking at two alternative secondary endings, but rather the expected reflex of the regular PIE secondary ending versus a possible special perfect ending. The evidence for the reconstructed perfect ending *\*-meH* relies solely on Vedic evidence, which makes it difficult to reconstruct as a PIE reality but if it is correct that

the lengthened forms of the ending originate in the perfect, it effectively rules out a derivation from an alleged secondary ending PIE *\*-mem*. The dual does not seem to play a role here either.

### 3.2.6 *Other evidence*

There is some additional evidence that might be relevant to the question of the *n*-element and we have to consider. Vedic 2<sup>nd</sup> person plural endings *-tha* and *-ta* could sometimes be extended by a *-na* element (which scans *-nā*) (Sihler 1994:464). Here Hittite and Vedic share a feature as the regular 2<sup>nd</sup> person plural ending in Hittite is *-ten(i)*. If this is originally a second person extension we might then assume that the 1<sup>st</sup> person plural in Hittite has acquired its *n*-element from the 2<sup>nd</sup> person plural. The comparison between Hittite and Vedic extends only to the *n*-element but it seems hard to reconcile the quality and quantity of the following vowels and trace them to the same source.

This does not bring us much closer to a solution of the problem. This extra piece of morphology in Vedic is not easily explainable. It could be the same nasal-element that is responsible for the Hittite endings. If this is the case we have a possibility to link together Vedic with the Anatolian situation. It is difficult to reconcile these distributional facts with the Greek *n*-ending, which is limited to the 1<sup>st</sup> person plural and unknown in the 2<sup>nd</sup> person plural.

### 3.2.7 *Conclusion*

All these problems discussed here do not lend themselves to any clear common solution. One possible solution is to assume a common PIE morphological element which contained a nasal, but was not a full-fledged ending. This element could be added to the secondary endings in the 1<sup>st</sup> and 2<sup>nd</sup> person plural. It survived as such in

Anatolian, and some relics of it survived in the 2<sup>nd</sup> person in Vedic as well. In those dialects of Greek where it survived it was limited to the 1<sup>st</sup> person plural.

Alternatively we can assume historical parallel analogical developments in Greek and Anatolian which extended final *-n* from elsewhere in the verb conjugation system (most likely from the dual, supported by the 1<sup>st</sup> person singular).<sup>29</sup> This view would then indicate further analogical spread of the *n*-ending to the second person plural in Hittite. This opinion does not account for the *n*-extension of the second plural endings in Vedic and views those as a Vedic peculiarity.

The result from this short survey of the major Indo-European languages therefore shows that the situation in PIE might have been more complicated than is suggested by the overview in 2.2.3. We might have to consider additional morphological elements that could change the shape of the endings. However the evidence under consideration here did not indicate that an alternative secondary ending *\*-men* (or *\*-mem*) existed in the protolanguage.

### 3.3 Germanic

In this section we will take a closer look at the main theories of origin of the 1<sup>st</sup> person plural forms in Germanic that are considered regular. Even though the evidence from the majority of the languages points to a common ancestor ending in PG there are a few possible ways to arrive at the PG situation.

#### 3.3.1 *Present indicative*

All the Germanic languages show evidence for the same 1<sup>st</sup> person plural ending, namely *-m*.<sup>30</sup> The handbooks seem to generally agree that this ending should be taken

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<sup>29</sup> It is perhaps possible to consider a 1<sup>st</sup> person dual ending of the shape *\*-uen* to be very old and part of the Proto-language. The regular ending *\*-ues* would then be secondarily remodeled from the plural. This view would require reevaluation of the reconstructed verb system and will not be pursued further here.

<sup>30</sup> Ignoring for the time being the issue of different linking vowels, see section 3.5.1 below.

as reflecting a regular development of PIE primary ending *\*-mes* > to PG *\*-miz* (e.g. Hirt 1932b:138, Krahe/Meid 1966b:99). A different view considers this ending to be lost in Germanic and the attested endings reflect the analogical spread of PIE secondary ending *\*-me* (Sihler 1995:463). Before we address the situation in the attested Germanic languages we will take a closer look at the evidence for the sound laws in question.

Our starting point is the PIE primary ending. The regular development of PIE ending *\*-mes* would be to PG *\*-mez/\*-miz*. The nasal retains its quality and the short unaccented *\*e* develops to *\*i* regularly.<sup>31</sup> The development of final PIE *\*-s* to final PG *\*-z* is traditionally somewhat unclear. It could be viewed as a result of Verner's law which would give us an alternation between voiced and voiceless variants of the same underlying phoneme. The distribution of these alternate forms would be dependent on early accent patterns, when the accent was still mobile. An alternation of this sort is found in various places within Germanic, most noticeably an *s/z* alternation is found in certain 2<sup>nd</sup> class strong verbs such as OE inf. *cēosan* vs. past pl. *curon* which reflects PG alternation *\*kiosan-* vs. *\*kuzu-* (cf. Krahe/Meid 1969a:88).

Krahe/Meid look at the development of the verb ending within their general view that the moveable accent resulted in double forms in *s/z* in various categories. These were then analogically leveled, mostly with *-z* being generalized (1969a:126-127). According to this interpretation PIE *\*-mes* would have resulted at a very early Germanic stage in both PG *\*-mes* and *\*-mez*, depending on whether the ending was accented or not. The variant PG *\*-mes* would have been originally restricted to athematic verbs (Krahe/Meid 1969b:142). The main reason they posit these two variants of the 1<sup>st</sup> person plural ending is to be able to explain the OHG ending *-mēs*

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<sup>31</sup> The vowel is nowhere attested so its quality cannot be asserted. The development of *e* to *i* is only hypothetical based on evidence for the development of unaccented *e* to *i* where it survives (cf. Krahe/Meid 1969a:65). The vowel in this ending is subsequently dropped (cf. Krahe/Meid 1969a:129).

which then would stem from the alternant ending PG *\*-mes* via some secondary developments (further discussion of this derivation in section 3.5 below).

There are strong indications however that all final PIE *\*-s* regularly developed to a *\*-z* in the period of Proto-Germanic. In other words there is no reason to invoke Verner's law to explain the final *-z*. We have evidence to support this from all branches. In Gothic we don't expect any distinction between original final *-s* and final *-z*, as all voiced consonants are devoiced in final position. Thus we would expect final Germanic *-z* to come out as *-s*. This is indeed what we get, e.g. in nominative singular masculine *a*-stems such as *dags*. However we find forms such as Gothic *maizuh* (*maiz* + enclitic *uh*) 'and more' which show us that the sibilant was originally voiced and this voicing was preserved when immediately followed by an enclitic particle. In North Germanic we also have evidence for the voiced character of the final sibilant. Most prominent of those is the regular outcome of this sound, namely *-r*, i.e. a voiced trill in both polysyllabic and monosyllabic word form, e.g. ON *dagr* 'day' < PG *\*dagaz* and ON *sýr* 'sow' < PG *\*sūz*. Another indication is the fronting effect this sound has on its preceding vowel, enough for it to drive *i*-umlaut, e.g. the development of 'sow' shown above where  $\bar{u} > y$  (cf. Boutkan 1995:44 and 48).

If we accept the development of final *-s* to *-z* as regular, we must again explain all apparent exceptions, namely those cases where we do get a final *-s* in the Old Germanic languages that cannot be explained as a regular devoicing of *-s* as is the case with Gothic. In those cases we have to use other methods, such as analogy, or the existence of some extra morphology after the *s* in question. An example would be the particle *i* in the third syllable that disappeared already in the period of Proto-Germanic, cf. 2<sup>nd</sup> person sg. present *\*bheresi* > *\*beres* (Krahe/Meid 1966a:129). We can therefore accept the regular development of PIE *\*-mes* to PG *\*-mez/miz* and further to *\*-mz*. To reach the last step we may again invoke the rule of short unaccented vowels dropping in a final (third) syllable.

The next question to ask then is how this PG ending would come out in the various daughter languages. The usual outcome of final *-z* is *-s* in Gothic, *-r* in North Germanic and *-ø* in West Germanic, e.g. nom. sg. masc. *a*-stem Gothic *dags*, ON *dagr*, OHG *tag*. Mechanically applying this to the ending in question we would expect Gothic *\*\*ms*, ON *\*\*mr* and OHG *-m*. However there is no trace of such endings in either Gothic or Old Norse. If we want to trace the regular present ending to this source we have to assume that in this case (i.e. immediately following an *m*) the final *-z* is lost in all subbranches, also in Gothic and North Germanic by a special sound law. This assumption is supported by the (almost) parallel sound development, which occurs in the dative plural ending, i.e. old instrumental, PIE *\*-mis* develops to *\*-miz* > *\*-mz* > *-m*, e.g. Gothic *dagam* (Krahe/Meid 1969b:11).<sup>32</sup>

The result is that we can agree with Krahe/Meid in tracing the *m*-ending of the 1<sup>st</sup> person plural to PIE *\*-mes* if we accept a special treatment of final *-mz* in North and East Germanic and even if we ignore their use of Verner's law. An opposing view attempts to derive the present indicative ending in Germanic from PIE secondary ending *\*-me*. According to regular sound laws the PIE ending *\*-mes* should have come out as Goth. *\*\*ms* and ON *\*\*mr* respectively (cf. Sihler 1995:463). This position does not accept the assimilation of the final consonant by a special sound-law and the parallel development of the dative plural mentioned above. The secondary ending would then have replaced the regular primary ending by analogy in the Proto-Germanic period in similar fashion as it did in Lithuanian (cf. section 3.2.2.). This alternative does not have any advantages over the less problematic view of deriving the ending regularly from *\*-mes* to *\*-mez/-miz* to *-m*.

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<sup>32</sup> The instrumental ending *\*-mis* is a commonly reconstructed alternative form to the more regular ending *\*-bhis* (cf. Szemerényi 1990:169).

### 3.3.2 Preterite indicative

As has been mentioned before the Germanic preterite is related to the PIE perfect and derived from it. There are many similarities between the Germanic strong preterite and the Indo-European perfect formation, i.e. *o*-grade of the root as well as the shape of the singular endings. However the Germanic preterite differs in some respect from the PIE perfect. The endings of the 3<sup>rd</sup> person plural are obviously not related to the 3<sup>rd</sup> plural endings of the PIE perfect, and we also notice that the Germanic preterite generally lacks one of the main characteristics of the PIE perfect, namely reduplication. Some branches of Germanic point to further secondary interference, e.g. the 2<sup>nd</sup> sg. preterite forms in West Germanic, e.g.: OHG *bizzi*, ‘you bit’ *nāmi* ‘you took’, Corresponding forms in ON are *beizt* and *namt*, which illustrate the different ablaut grade of the root as well as a different ending.

We assumed that the original PIE ending for the 1<sup>st</sup> person plural of the perfect might have been *\*-meH*, but there is limited evidence for this ending from any other branches beside Indo-Iranian. Most branches seem to have replaced this ending with the present/aorist secondary ending *\*-me* very early. It is clear when we look at the evidence from the attested forms in the Germanic languages that *\*-meH* cannot be the ancestor of the regular preterite ending *-um* that we reconstruct for the PG preterite. Krahe/Meid assume that the preterite 1<sup>st</sup> person plural is directly traceable to a Proto-Indo-European perfect ending *\*-me* which would become *\*-m* in Germanic following the deletion of vowels in the third syllable discussed above (Krahe/Meid 1969b:105). When the verb stem ended in a consonant this *\*-m* became syllabic and from this syllabic *\*-m̥* we regularly get the Germanic ending *\*-um*. We therefore have two separate sources for the 1<sup>st</sup> person plural present and preterite endings in Germanic, both of which end in a final *-m*.

Prokosch (1939), on the other hand, seems to derive all the 1<sup>st</sup> person plural endings in *-m* in Germanic as ultimately from the same source. Originally he takes this ending as having belonged to the strong preterite and from there it has been generalized to the present forms (at least this is how he explains the *-m* ending in Old Norse (1939:211) and the 1<sup>st</sup> person plural ending of weak preterites as well. He takes the plural endings of the strong preterite to go back to “the secondary endings of the athematic aorist, with analogical extension” (1939:217), without going into details.

Prokosch (1939) invokes the secondary ending PIE *\*-men* as a potential ancestor of the Germanic preterite 1<sup>st</sup> person plural ending. This derivation seems to reflect his general opinion that strange forms such as the 2<sup>nd</sup> sg. preterites in West Germanic can be explained as aorist formations and the aorist is responsible for many peculiarities of the Germanic preterite. In line with this opinion Prokosch’s derivation of the 1<sup>st</sup> person plural is therefore from an aorist secondary ending PIE *\*-men* to Germanic *\*-um*. This derivation is given without any discussion of the relevant sound-laws and without going into any details on how he imagines the development might have taken place.<sup>33</sup>

We have previously discussed the evidence for the alternative secondary ending PIE *\*-men* and concluded that it was unlikely that this ending existed as a fully fledged ending in the time of PIE. If we nonetheless give this hypothesis the benefit of the doubt and attempted to derive the ending of the 1<sup>st</sup> person plural preterite from PIE *\*-men*, we would expect the end result to be the same, i.e. PG *\*-m*. Preferring this over the perfect ending *-me* seems to be a matter of personal choice as the latter ending is perfectly capable of giving us the desired outcome, if we assume a similar scenario to Krahe/Meid discussed above. The preceding *u*-vowel could then be explained as development of a syllabic *-m̥* in early Germanic. However, it is also possible to just derive the *um*-ending directly from something like PIE *\*-m̥* which theoretically could

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<sup>33</sup> Prokosch (1939:217): “The pl. endings go back to the secondary endings of the athematic aorist, with analogical extension, as in Greek: 3 pl. *-nt* > Gk. *-αυ*, Gmc. *-un*.”



be a simplification of an unaccented secondary ending *\*-m̃ñ* from *\*-men*. This has to be the least desirable option as this ending would be by-form of the ending *\*-men*, which we do not have very good evidence for to begin with.

Another possibility is to derive the 1<sup>st</sup> person plural ending of the preterite from the same source as the 1<sup>st</sup> person plural ending of the present, i.e. in PIE primary ending *\*-mes*. The shape of the ending as ending *-um* would reflect the analogical spread of the *u*-vowel from the 3<sup>rd</sup> through 2<sup>nd</sup> person plural to the 1<sup>st</sup> person plural. This does not give us any advantage over deriving the 1<sup>st</sup> person ending from the regular ending of the perfect and seems to add more complexity to our general assumption of tracing the Germanic preterite back to the PIE perfect.

The result of our exploration of possible origin of the regular 1<sup>st</sup> person plural endings in Germanic points to that the present ending can be traced to the regular primary ending PIE *\*-mes* and the preterite ending can be traced to the perfect ending PIE *\*-me*.

### **3.4 Peculiar 1<sup>st</sup> plural forms in Germanic**

There are a few alternate forms or forms that do not conform to the derivation of endings from PIE to PG and from PG to each of the daughter languages as it has thus far been laid out. It is necessary to take a closer look at these forms, not only to account for their origin, but also to observe what factors are involved when verbal endings are reshaped and what conditions contribute to the rise of alternative forms.

#### *3.4.1 North Germanic*

Although we have a relatively large number of examples of 1<sup>st</sup> person singular forms in Runic Norse, there are unfortunately no examples of 1<sup>st</sup> person plural forms (cf. Krause 1971:121-123). Krause (1971:126-128) reconstructs *\*-amR/-umR* in the present indicative, *\*-um* in the preterite and in the optative *\*-ē̃m* (pres.) and *\*-ī̃m*

(pret.). The oldest texts available to us in Old Icelandic and Old Norwegian illustrate the regular development of these endings and we find *-um* in all classes of verbs in the present and preterite indicative and *-im* in the present and preterite optative.<sup>34</sup>

Already in some older texts, but not the oldest ones, we find alternative forms of the 1<sup>st</sup> person plural without the final *-m*, when the relevant personal pronoun immediately follows the verb form. The pronouns involved are either *vit* ‘we two’ (dual) or *vér* ‘we’ (plural) (Noreen 1970:358). The explanation for this is that the labial feature of the final nasal and the labial feature of the initial consonant of the personal pronoun caused the boundaries between the verb form and the pronoun to be blurred and then wrongly parsed by certain speakers and this is reflected in the spelling of the oldest texts. There are also alternative pronominal forms, 1<sup>st</sup> person dual *mit* and 1<sup>st</sup> person plural *mér*, which show the nasal feature of the final *-m* of the verb ending having moved to the initial labial phoneme of the pronoun following a similar blurring of word boundaries in inverted syntactic context. These alternative *m*-form pronouns are limited to Old Norwegian and are most commonly found postverbally but not exclusively so (Noreen 1970:203).

These alternative forms in Old Norse illustrate the close connection between a verb ending and a personal pronoun. The examples cited above demonstrate how a verb ending can lose some phonetic material on the account of following pronoun. There are also examples of the opposite development, namely that a phonetic feature of the personal pronoun becomes part of the ending. An example of such a development is attested in Modern Icelandic where the 2<sup>nd</sup> person singular form of verbs acquired the dental fricative of the 2<sup>nd</sup> person pronoun *þú* ‘you sg.’, (cf. Þórólfsson 1925:112). Thus ON conjugation of *sjá* ‘see’ in the present indicative, 1<sup>st</sup> sg. *sé*, 2<sup>nd</sup> sg. *sér*, 3<sup>rd</sup> sg.

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<sup>34</sup> Old Swedish shows the ending *-um/-om* in the optative from earliest texts (Noreen 1904:476). The development is only regular for the 2<sup>nd</sup> class of weak verbs but has spread from there to the other verbs and was also reinforced by the indicative endings (loc. cit). A similar change of the 1<sup>st</sup> person pl. optative endings from *-im* to *-um* took place in Middle and Modern Icelandic as well but solely motivated by the indicative endings.

*sér*, becomes in Modern Icelandic 1<sup>st</sup> sg. *sé*, 2<sup>nd</sup> sg. *sérð*, 3<sup>rd</sup> sg. *sér*. From these examples we can see that the boundaries between the ending and a pronoun are often unclear in the minds of the users of the language, including the people that wrote down the texts from which we derive our linguistic knowledge. It is important to keep this fact in mind when we investigate different theories concerning the origin of the OHG 1<sup>st</sup> person plural ending.

There is some evidence in Old Danish for 1<sup>st</sup> person plural endings that end in a vowel *-a* *-e*, or *-æ* (Brøndum-Nielsen 1973:66-67). These are explained either as regular 3<sup>rd</sup> person plural forms in *-a* that have further spread to the 1<sup>st</sup> person plural or as shortened forms of the ending *-um* in inverted forms (*-u*) which we already discussed. These short forms show a regular secondary phonological development of unaccented final vowels in Old Danish, i.e. : *-u* > *-e* or *-æ* and *-a* > *-e* or *-æ*.

All the alternative endings found in the North Germanic languages can be accounted for by phonological alternations and regular sound-law. They all show the same origin in the regular ending, *-(u)m*.

### 3.4.2 *East Germanic (Gothic)*

In East Germanic or Gothic we have the ending *-m* as well as an optative ending *-ma*. The second ending is not easily explainable and has no obvious cognates in the other Germanic languages. Most authorities trace it back to a PG *\*-mē* (Krahe/Meid 1969b:131, Krause 1968:261). This view entails assuming two variants of the present/aorist secondary ending in PG; *\*-mē* besides regular *\*-me*. Such lengthened secondary ending is allegedly independently attested in Lithuanian reflexive forms such as *sùkomės* ‘we turned ourselves’. Therefore it is possible that this lengthened secondary ending is a PIE phenomenon that survived in Germanic as well. The existence of such a lengthened secondary ending is nonetheless a complication that we would like to avoid if possible.

Theoretically the final *-a* in the Gothic ending could go back to other long vowels than *\*ē* or a diphthong. Prokosch (1939) reconstructs a PIE ending with a final *\*-ā* as a potential ancestor of the Gothic ending (see section 3.6.2.2). This is not the only possibility as PIE *\*-ā* and *\*-ō* (= PG *\*-ō*) as well as PG *\*-ai* and *\*-ōm* can all give final *-a* in Gothic, i.e. *ō*-stem fem. nom. sg. PG *\*rūnō* > Goth. *rūna*; 3<sup>rd</sup> person sg. middle PG *\*beraðai* > Gothic *bairada* and *ō*-stem fem. acc. sg. PG *\*rūnōm* > Goth. *rūna*. Hypothetically the Gothic ending *-ma* could thus go back to PG *\*-mō*, *\*-mai* and *\*-mōm* besides the commonly reconstructed *\*-mē*.

These hypothetical endings do not bring us much closer in explaining the origin of the Gothic ending. If we want to avoid reconstructing an alternative secondary ending *\*-mē* it is perhaps possible to account for the Gothic ending by assuming a different origin. This can be done by postulating that besides the regular secondary ending *\*-me* we had an alternate form *\*-mo*, which can be accounted for by the same early PIE rule of unaccented *\*e* > *\*o* that is discussed in sections 2.2.3.2 and 3.2.1. If we imagine that this ending *\*-mo* could be strengthened by a particle *-i* we would have a late PIE preform *\*-moi*, a potential ancestor of PG *\*-mai*. This form is only hypothetical and not supported by any independent evidence. Of course it is very unlikely that this ending ever existed but the point remains that *\*-mē* is not the only possible ancestor of the Gothic ending. This ending is discussed in more detail in section 3.6.2.2.

### 3.4.3 West Germanic

West-Germanic languages in the Ingvaemonic area have eliminated the distinction between persons in the plural of verbs (most prominent of those being Old English and Old Saxon). The 1<sup>st</sup> person plural verb form has been analogically replaced by the 3<sup>rd</sup> person plural form in the present and preterite indicative and optative, through a process of paradigmatic leveling. Therefore all comparison with the 1<sup>st</sup> person plural forms in these languages is useless, but for one exception. The 1<sup>st</sup> person plural

imperative (adhortative) forms in OE are not like the present indicative plural forms. Here the ending is commonly imp. *-an* vs. ind. *-(e)ð* (Brunner 1965:269).

It is possible that this ending continues the regular Germanic 1<sup>st</sup> person present indicative ending which is otherwise lost (PG *\*-am* > OE *-an*).<sup>35</sup> It is also possible that the ending goes back to the present optative plural forms which originate from the 3<sup>rd</sup> person plural where we find an early OE ending *-æen*, which later can have the forms *-an* and *-en* (Brunner 1965:277-278). If this first person plural ending in *-an* represents the OE reflex of an old PG 1<sup>st</sup> person plural ending, it points to an origin in the regular present indicative ending in final *-m* from PG *\*-m(i)z*, cognate with the endings we find in North and East Germanic.

#### 3.4.4 *Summary and conclusions*

This survey of peculiar 1<sup>st</sup> person forms found in the Germanic languages has shown us that the majority of the forms can be explained by assuming some secondary development in the individual languages. It is clear that the alternative endings found in North and West Germanic can ultimately trace their origin back to PG primary ending *\*-m* < *\*-m(i)z* or secondary ending *\*-m* < *\*-m(e.)* The only exception to this is the Gothic ending which is not easily explained, but could also reflect some pre-Gothic or late PG development.

### 3.5 Old High German 1<sup>st</sup> person plural forms

Unlike the rest of West-Germanic the elimination of distinctive person forms in the plural did not occur in OHG. In this language we have distinguishing forms for 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> person for all verbs. But the situation in OHG has a different problem associated with the plural verb forms and the 1<sup>st</sup> person in particular. Already in the oldest preserved OHG texts we find a 1<sup>st</sup> person plural ending that is different from the

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<sup>35</sup> This reconstructed ending PG *\*-am* has to be a late form of the regular primary ending, PG *\*-m(i)z*, attached to a thematic stem.

endings found in the rest of Germanic. Here we find forms such as 1<sup>st</sup> person plural present indicative *beremes* ‘we carry’ (Isidor translation ca. 800) instead of *\*\*berem* (*\*\*beram* or even *\*\*berum* cf. section 3.5.1 below) we might assume the form would have been if the morphological recipe from PG had been followed in the same manner as in North and East Germanic. In the Benedictine rule text (800-825) we find forms such as *haremees* ‘we cry out’. The logical assumption then is that this OHG ending is best described as *-mēs*, i.e. with a long vowel as the double writing from the Benedictine rule text indicates. This is at least how this ending is characterized in all handbooks and grammatical analyses of OHG. This ending cannot directly reflect either the Proto-Indo-European primary ending *\*-mes* or the secondary ending *\*-me*. It is clear that a special development has occurred in OHG that we must account for.

### 3.5.1 *Linking vowel*

Before we look at the ending *-mēs* itself some further explanation is needed. In a large majority of verb forms the ending is immediately preceded by a vowel we will refer to as the linking vowel. The linking vowel has several different origins. In the present indicative we assume that in strong verbs, which for the most part originate as thematic stems, the vowel goes back to the PIE thematic vowel which was *\*o* in the 1<sup>st</sup> person plural, i.e. primary ending PIE *\*-omes*. This vowel has two different outcomes in the Germanic languages. In Gothic it regularly develops to an *a*, whereas in North Germanic it remains an *o*- or an *u*-vowel, perhaps because of the following labial (cf. Krahe/Meid 1969a:65-66). We thus have forms such as 1<sup>st</sup> person plural present indicative Gothic *bairam* vs. Old Norse *berum*. This is evident in other morphological forms as well, such as the dative plural of *a*-stem nouns: Gothic *dagam*, ON *dögum* ‘days’.

The origin of the Old High German ending is not very clear and it is not certain whether this ending can be traced back to the primary ending PIE *\*-omes* in the same

manner as the rest of the Germanic languages. It seems though, that OHG patterns with North Germanic as we find some corresponding forms such as OHG *tagum* and OHG *berumēs* ‘we carry’. It is therefore likely that the linking vowel in the OHG verb should be considered to have the same origin as the corresponding forms in the rest of Germanic.

If we assume a common origin of the linking vowel it is still problematic to account for it in PG terms. We can either assume that a PG linking vowel *\*o* did not change to *\*a* until pre-Gothic or we can assume that the PG *\*o* changed to an *\*a* already in PG and then later in North and West Germanic this vowel was secondarily rounded when preceding the labial nasal of the ending. There are other possible ways to account for the situation. The ON verb ending could be a result of analogy from the preterite ending which has the same surface outcome *-um*, but is of a different origin. It is also possible that the OHG linking vowel has a completely different origin altogether if the origin of the ending is different from its East and North Germanic counterparts.

The situation is further complicated by the fact that the linking vowel in OHG is very varied. More common linking vowel for the strong verbs in OHG is *a* or *e*, i.e. forms in *-ames* and *-emes*. Perhaps the OHG *u*-vowel should be considered analogical or secondary. If this is the case we could assume that an *o*-vowel in PIE developed regularly to an PG *\*a*, i.e. the standard reconstructed ending would have been PIE *\*-omes* > PG *\*-am(i)z*. If the OHG linking vowel has this origin this is in some ways a more attractive solution, as it would account for the linking vowel of strong verbs in majority OHG texts.

The forms in *u* are only known from a handful of texts, and are considered to represent the oldest form (Braune/Reiffenstein 2004:262). If the *u*-vowel is original, the *a*- and *e*-linking vowels in strong verbs must be analogical. The *a*-vowel could be analogical from the 3<sup>rd</sup> person plural or the infinitive which both had *a*-vowel, and the *e*-vowel would be analogical from the weak verbs (cf. Boutkan 1995:313).

The linking vowel in the weak verbs traces its origin back to the stem vowel of that particular verb class. It is most stable in the 2<sup>nd</sup> and 3<sup>rd</sup> class of weak verbs. In these classes we find the ending to be *-ōmēs* and *-ēmēs* respectively. In the 1<sup>st</sup> class of weak verbs the vowel is more unstable. We would expect the vowel to be *e* which is the outcome of *\*ja* in other categories, e.g. the infinitive in *-en* from *\*-jan*. This is however not the case. Most texts have the same linking vowel for the 1<sup>st</sup> class of weak verbs and the strong verbs and this vowel is most commonly *a* or *e*. Thus in some texts we find only forms in *-emes* and in others, only forms in *-ames* for both classes of verbs. Other texts show more or less random distribution of the linking vowel.

The situation in OHG indicates that we had four potential linking vowels, *-u-*, *-a-*, *-o-* and *-e-* which reflect different origins of the verb classes they were originally associated with. The evidence from the text indicates that analogical forces played a big part from the earliest times with *-e-* and *-a-* becoming more dominant.

We can now remind ourselves what possible categories we are dealing with. There are five categories where we find a 1<sup>st</sup> person plural verb form. The present indicative, the present optative, the preterite indicative, the preterite optative and the present imperative (adhortative).

**Table 3.5-1**

	<b>Present indicative</b>	<b>Present optative</b>	<b>Preterite indicative</b>	<b>Preterite optative</b>	<b>Present imperative</b>
<i>Strong</i>	-umēs/amēs	-ēm(ēs)	-um(ēs)	-īm(ēs)	-umēs/amēs
<i>Weak 1</i>	-emēs	-ēm(ēs)	-tum(ēs)	-tīm(ēs)	-emēs
<i>Weak 2</i>	-ōmēs	-ō(ē)m(ēs)	-ōtum(ēs)	-ōtīm(ēs)	-ōmēs
<i>Weak 3</i>	-ēmēs	-ē(ē)m(ēs)	-ētum(ēs)	-ētīm(ēs)	-ēmēs



### 3.5.2 Old High German dialects

Before we can discuss the particulars of the OHG 1<sup>st</sup> person plural forms some background information is necessary. The Old High German material represents various forms of the language. There is no standardized or common written language. The preserved texts clearly show that there were regional differences in the variety of the language being used. There is wide range of linguistic criteria used to identify the characteristics of each of these dialects. I refer to the handbooks for the details (cf. Sonderegger 1974, Braune/Reiffenstein 2004).

To give some idea about the issues at hand we will briefly account for the major dialectal groupings. There is a significant distinction between the upper (Bavarian and Alemannic) and the middle (Franconian) dialects which are then further divided. There are usually six main dialects identified which are linked to certain locations of learning (monasteries) where the manuscripts were written down.

**Table 3.5-2**

<i>Bavarian:</i>	Regensburg, Freising, Tegernsee, Salzburg, Mondsee, Passau
<i>Alemannic:</i>	St. Gallen, Reichenau, Murbach
<i>South-Rhenish-Franconian:</i>	Weissenburg
<i>Rhenish-Francoian:</i>	Mainz, Lorsch, Speyer, Frankfurt
<i>East-Franconian:</i>	Würzburg, Bamberg, Fulda
<i>Middle-Franconian:</i>	Trier, Echternach, Köln, Aachen

(cf. Braune/Reiffenstein 2004:5)

Even though we have these defined dialects, it can be difficult to assign a particular text or a manuscript to a certain dialect. It is often the case that the manuscript preserved in one dialect is perhaps a copy of an original written in another. The result is a text that might show characteristics of more than one regional variety. The Isidor text is perhaps the best example of this. It shows traits of many different dialects and has not been convincingly placed as belonging to any single one (cf. Bostock 118-119).

The dialectal variations and the complex origin and preservation of many texts is something we need to keep in mind when we take a closer look at the 1<sup>st</sup> person plural ending in particular.

### *3.5.3 Old High German period*

Before we can discuss the 1<sup>st</sup> person plural ending in Old High German specifically and put its attestation and preservation into perspective it is necessary to give a very brief account of the sources of this language.

The Old High German period stretches from the 8<sup>th</sup> century through the 11<sup>th</sup> century. There are some relics of German that are older than that, preserved in a few runic inscriptions or as single words quoted in various Latin texts. The oldest of these are from the 6<sup>th</sup> century (cf. Sonderegger 1974:57). There is really no clear time point where the OHG period ends, but rather by the late 11<sup>th</sup> and early 12<sup>th</sup> century the language has changed to such an extent that it is better characterized as Middle High German. The Middle High German period lasts from the 12<sup>th</sup> to the 15<sup>th</sup> century (cf. Sonderegger 1974:11-36). The bulk of the material and most of the more substantial OHG texts are from the 9<sup>th</sup> century.

Old High German is preserved in a variety of texts belonging to different genres. The earliest preserved vocabulary of OHG is found in glosses to Latin texts, which are preserved in over 1000 manuscripts that span the whole period and beyond (see Bergmann/Stricker 2005 for a full account of these). These are not coherent texts but rather words or phrases, written down interlinearly or marginally in the manuscript and aimed to help the reader of the Latin original. The dating of such glosses is often problematic as the OHG gloss might not necessarily stem from the same time as the main text of the manuscript, but could have been added at a later time.

The first substantial OHG texts are compilations of such glosses. The earliest such work is the “Abrogans” which is a glossary of Latin words and phrases found in the

books of the bible. The oldest manuscripts of this work is dated to the late 8<sup>th</sup> century (Bergmann/Stricker 2005:578), but this manuscript is a copy of a somewhat older text (cf. Bostock 1976:95).

A different kind of gloss related literature is comprised by the so-called interlinear glosses, i.e. texts where almost every single word is translated and written down above the Latin original. Works in this tradition include the Benedictine Rule, which is dated from the early ninth century and the Murbacher Hymns from around the same time (Sonderegger 1974:70).

More significant literary works belonging to various other genres start to appear from around 800. The oldest of those is the Isidor translation which is preserved in two manuscripts from the late eighth and early ninth centuries (cf. Eggers 1964). This translation is consistent and fluid, different from glosses and is perhaps the first attempt at real literature in OHG. Other major works include the translation of the gospel harmony of Tatian. This text is dated to about 820-830, written in an East Franconian dialect and only preserved in one manuscript (cf. Masser 1991). The *Evangelienbuch* of Otfrid, written somewhere between 863 and 871 is another major piece of literature. It represents the first significant original composition in OHG, over 7000 lines in verse. It is preserved in three manuscripts with remnants of the fourth, all from shortly after the time of composition. There are not a lot of texts preserved from the following decades. The next significant contribution to the OHG body of literature comes in the later part of the 10<sup>th</sup> century through the works of Notker (who lived from 950-1022). His contributions represent the largest body of texts preserved from the OHG period. These are mostly translations of various Latin texts but some were his original compositions. He devised a very detailed orthography which he used in his works, where amongst other features; vowel length is indicated with the employment of accents (cf. Bostock 1976:281-298).

Beside these works briefly mentioned here there are a significant number of other texts of lesser substance that we have not discussed. Regarding the preservation of OHG and the varieties of texts, cf. Sonderegger (1974), Bostock (1976), Murdoch (2004).

#### 3.5.4 *Distribution of the ending*

In Graff's early dictionary work (GraffSpr) there are 56 different OHG texts cited that have 1<sup>st</sup> person plural verb forms in *-mēs*. Most of these are not very long and might only have one or two examples of 1<sup>st</sup> person verb forms. It is hard to generalize about the distribution of the ending in these texts as not all categories of the verb are represented. We get a better picture from the more substantial texts, i.e. texts that have multiple attestations of 1<sup>st</sup> person plural forms in both tenses and moods.

We can group the texts into four basic groups when looking at the different patterns for the distribution of the 1<sup>st</sup> person plural forms in *-mēs* between different categories. The first group has the *mēs*-ending limited to present indicative (and imperative), but present optative and the preterite moods show the ending *-m*. This is the case in the Freisinger Paternoster (Bavarian early 9<sup>th</sup> century) as well as the Isidor text (from ca. 800) although this latter text does not have any present optative forms.<sup>36</sup> The second group has the *mēs*-ending limited to the present indicative (and imperative) and the present optative, but *-m* in the preterite indicative and optative. This is the situation in the Abrogans manuscripts K (late 8<sup>th</sup> century Alemannic with Franconian influences), Ra (Alemannic 9<sup>th</sup> century) and Pa (Bavarian, early 9<sup>th</sup> century). The third group shows *mēs*-ending in all categories, though not exclusively. This is the situation in the Tatian text (East Franconian 820-830) and the Benedictine rule (Alemannic, early 9<sup>th</sup> century). In the Tatian texts we have both *-mēs* and *-m* as endings in both tenses and all moods. The proportions are about 4:1 in favor of the longer ending (Sievers

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<sup>36</sup> Harbert (1999) shows that the long 1<sup>st</sup> person plural forms in the Isidor text can be associated with the phenomenon of pro-drop with particularly salient desinences. There is some indication that this was the case in other OHG texts where the long ending is found.

1872:34-35). The distribution cannot be linked to any clear linguistic factors, but the short ending is often immediately followed by the pronoun, whereas the longer ending rarely is (Sievers 1872:21). The fourth group shows *mēs*-ending in limited use. This is the case in the Otfrid text (Rhenish-Franconian, 863-871) where the ending is only found marginally as adhortative although there are one or two examples found where the *mēs*-ending occurs in present indicative (Braune/Reiffenstein 2004: 263, 267). Otherwise the ending is *-n*.

The *mēs*-ending ultimately gets replaced by the shorter ending *-m/-n*, probably originating in the present optative. The *mēs*-forms are not found in the works of Notker (dated around 970-1020) where the regular 1<sup>st</sup> person plural ending is *-ēn*, which due to its long vowel is clearly analogical from the present optative (Braune/Reiffenstein 2004:263). The longer forms are completely gone by the time of Middle High German (Mausser 1933:1009). There are some late remnants of *mēs*-forms. We find a handful of examples in relatively young manuscripts, from the 12<sup>th</sup> and early 13<sup>th</sup> centuries (Förster 1966:69-73). However these don't reflect the verb forms in use at the actual time of the manuscripts as they are later copies of 10<sup>th</sup> century bible glosses, which we also have attested from 10<sup>th</sup> century manuscripts, including the same verb forms.

From this we can see that the ending *-mēs* has a rather short but complex history of attestation. It is known from the oldest period of OHG (late 8<sup>th</sup> century) but has disappeared towards the end of the OHG period (late 10<sup>th</sup> century). During this 200 year period from which we have actual texts where this ending is attested we find the ending being used differently in different texts. The variety in distribution observed is not easy to account for. The common opinion about the distribution of the long verb ending *-mēs* vs. the short ending *-m* is that *-mēs* originally belonged only to the present indicative, and spread from there to the present optative and further to the preterite indicative and optative (cf. Kögel 1882:128, Braune/Reiffenstein 2004:262).

This view assumes a rather rapid historical development. If we accept this view we have to assume that the ending *-mēs* spread from the present tense to other categories, including the present optative, but was not able to become so dominating as to fully eliminate the short ending *-m*. This shorter form of the ending, probably originating in the present optative, was then able to eliminate the *mēs*-ending by the end of the OHG period. Perhaps there are some other considerations, such as dialectal differences, that need to be taken into the picture. The ending probably did not spread in the same way in all dialects and perhaps survived longer in some of them.

It is clear that the ending originated in the present indicative. This is suggested by the fact that we do not have any texts that show the longer form of the ending in the preterite or optative forms if it does not already show it in the present forms. Further support for this conclusion comes from the Tatian text. In this text we find 1<sup>st</sup> person plural preterite forms such as *quamunmes* 152.4 ‘we came’, which points to a double ending, i.e. to the original form *quamun*, with the preterite ending *-un* has been added the morpheme *-mes*. This shows that the ending is clearly secondary in the preterite.

### 3.5.5 *Conclusions*

The main outlines of the situation in OHG thus can be summarized. In OHG texts we have two endings: *-m* and *-mēs* with rather indistinct distribution, with different texts showing different patterns in the use of these two endings. The distribution facts indicate that the ending *-mēs* originates from the present indicative. The linking vowel is *-o-* for *ō*-verbs but in most texts otherwise *-e-* and *-a-* with unclear distributional rules.

### 3.5.6 *Alternative forms of -mēs*

The ending *-mēs* has a few variants that do not conform to our ideas about the 1<sup>st</sup> person plural in OHG. These alternative forms do not fit well into the picture we have

portrayed so far as they seem to indicate a different phonological realization of the ending, i.e. we have 1<sup>st</sup> person plural verb forms that end in *-mus*, *-mas*, and *-men*. These variants are rather rare and are limited to specific texts, and are likely best explained in the context they are found.

### 3.5.6.1 1<sup>st</sup> person plural *-mas* for *-mēs*

There are a few examples of byforms of the 1<sup>st</sup> person plural ending in *-mas* for *-mēs* in the OHG corpus. These show up in Bavarian and Alemannic texts, but not consistently. There are two texts commonly cited as showing this feature (GraffSpr II:580, Kögel 1882:130), both belonging to the gloss tradition.

The first one is glosses to the *Cura pastoralis of Gregory the Great* which is found in a manuscript from the beginning of the 9<sup>th</sup> century (München, Bayerische Staatsbibliothek CLM 6277). This manuscript is 155 leaves and contains about a 850 OHG glosses to this Latin original. The glossed section of the manuscript is between pages 4v-72v, most of those are found on the margin but 270 are interlinear. The manuscript is glossed by multiple scribes from around the same time (i.e. early 9<sup>th</sup> century (Bergmann/Stricker 2005:1036-1037, Glosses II:162-177, V:525).

We find two examples with this variant ending glossing Latin first person plural verb forms *gipuoamas* ‘satisfacimus’ (175.21)<sup>37</sup> and *hatamas* ‘insequamur’ (175.22). These are only two out of about a dozen examples of 1<sup>st</sup> person plural in this text, which is otherwise denoted with a regular ending *-mes*, (e.g. *gilihtomes* ‘excidimus’ (164.22)). There are other examples in this particular text where an expected long *ē* is spelled with an *a*, such as *arzagatar* (176.32) ‘dissolutus’ “dissolute” for expected *arzageter*, showing the nom. sing. masc. ending *-ēr* in this participle form of OHG *irzagēn* ‘lack’. This suggests that *-mas* is not a special verbal ending but rather a part of a more general sound change *ē > a* (Kögel 1882:130). At the same time it is clear

<sup>37</sup> The numbers refer to page and line in the edition of Steinmeyer and Sievers

that this change did not affect all the potential forms in this text so this would not be a regular sound change, unless we could prove that it is limited to certain scribe.

An interesting alternation can be observed between *leidezant* (175.26) and *leidezent* (175.34) both glossing Latin 3<sup>rd</sup> plural present ind. “accusant” ‘accuse’, which are found in close vicinity of the aforementioned 1<sup>st</sup> person plural forms. These forms show a confusion of 3<sup>rd</sup> plural ending *-ant* vs. *-ent*.<sup>38</sup> Here this alternation seems to be affecting etymological short vowels.

The second text has only one example, *uuidirneozamas*, in the Augsburg glosses (gl I, 383, 59). There is no accessible edition of the text of this manuscript but there is reason to believe that the distribution of forms is similar to the distribution observed in the Munich-manuscript discussed above (cf. Kögel 1882:130).

Both of these texts are dated slightly younger than the oldest sources. From the context of where these forms are found we may assume that the ending *-mas* reflects a secondary phonological development and does not represent an archaism.

#### 3.5.6.2 1<sup>st</sup> person plural *-mus* for *-mēs*

All in all there are five examples cited in the literature of the alternative ending of the 1<sup>st</sup> person plural *-mus* for *-mēs*. There is one example in the *zaspaltemus* found in the Abrogans manuscript Pa (Pa 7640, early 9<sup>th</sup> century) 112,15; *pespurnemus* in cod. Vindob. 1239 (2<sup>nd</sup> part of the 9<sup>th</sup> century) Gl. I 787, 26 and three examples from the Bavarian (Freisinger) version of Otfrid (Cgm 14, early 10<sup>th</sup> century); *bittemus* I 28, 1; *singemus* I, 6, 15; and *ilemus* V, 23, 76.

The first example comes from the Abrogans glossary which is preserved in other older manuscripts. The verb form in the K manuscript (Cod. Sang. 911, late 8<sup>th</sup> century) is

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<sup>38</sup> There is commonly confusion between *-ant* and *-ent* in the 3<sup>rd</sup> person plural forms in OHG. The ending *-ant* is originally a feature of the strong verbs whereas *-ent* is a feature of the 1<sup>st</sup> class of weak verbs (cf. Braune/Reiffenstein 2004:264). The verb in question *leidezen* is originally a weak verb. Third plural forms of this verb in both *-ant* and *-ent* are known from other texts, but such an alternation within the same text is less likely.



*zispaldumes*. In this particular case it is likely that the form is a result of scribal error, where the scribe switched the position of the *u* and the *e*, when copying the text (Kögel 1882:130).

The second example could have a similar explanation, but here we do not have any attested original text to show what may have influenced the copyist. Alternatively it is possible that this one form shows a scribal error, possibly under the influence of the Latin verb ending *-mus*.

The three examples from the Otfrid text can also be explained away as incidental scribal errors. This manuscript is somewhat younger so it is possible that the scribe who copied this text was not familiar with the old verb ending and was furthermore influenced by the Latin verb forms he was familiar with in his copying duties. This is the suggestion of Kögel (1882). Explaining these examples as interference from Latin is not as attractive here as in the other example. The Otfrid text is from a different tradition of original composition and is not a glossed Latin text, although it incorporates elements that most certainly have a Latin parallel. At the same time it is clear that the Bavarian version of Otfrid is a copy of its older Franconian counterpart. It should therefore not be ruled out that this spelling indicates some secondary phonological development in a similar manner as the examples in *-mas*, but here it is not possible to find parallel development in other categories.

### 3.5.6.3 1<sup>st</sup> person plural *-men* for *-mēs*

We also have attested number of examples of the alternative ending of the 1<sup>st</sup> person plural *-men* for *-mēs*. We find these forms in Bible glosses manuscripts,<sup>39</sup> e.g. *leitamen*, *ziomen*, *uuerdemen*, *pismahetomen* (cf. Kögel 1882:131, Graff 1834-1842

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<sup>39</sup> The Bible glosses of the so called ‘Family H’, stem back to the same original glossary but are preserved in many different manuscripts from different times the OHG period and beyond. This gives us chance to compare the same verb form and observe how it was copied at different times (see Förster 1966).

II:580, Förster 1966). These forms are at first glance extremely odd, but when we look a little closer at the evidence they have a very logical explanation. Again the source of this alternative ending is a copying error. A common abbreviation for the ending *-mēs* in manuscripts was an *m̄*, i.e. *m* with a superscript bar or stroke. Such superscript bars are used as abbreviation marks, and commonly for *-en*. The prevailing opinion (e.g. Kögel (1882), Roberts (1935)) is that these *n*-endings can be explained as the work of a copyist who didn't know this ending and thought that verbs ending in *-m̄* in the manuscript showed such a nasal abbreviation and thus wrote *-men* rather than *-mēs* when he wanted to write out the abbreviation in full. There are plenty of parallel texts occurrences which support this conclusion, e.g. Gl I, 491, 41 *uuerdemen* in Clm 18140 (dated 1050-1075) vs. *uuerdem̄* in Clm 19440 (dated ca. 1000)<sup>40</sup> and *uerdam̄* in Cod. Vindob. 2723 (dated 950-1000) (Kögel 1882:131, Förster 1966:70).<sup>41</sup> These forms are therefore not an instance of an actual *n*-ending and do not represent a preserved archaism and clear that they have nothing to do with the alleged PIE ending *\*-men* discussed in section 3.2.

### 3.5.7 Conclusion

All of the variant endings found, *-mas*, *-mus* and *-men* are secondary, either a result of a sound development or a copying error. They can be explained in a satisfactory manner and do not have any influence on our discussion of the development of the verb system from PIE to PG and further to OHG. They do not shed much light on the general problem of the long 1<sup>st</sup> person plural ending, although they might indicate some vowel confusion. We can thus assume that in the oldest period of OHG we are dealing with only one such ending, namely *-mēs*.

<sup>40</sup> Parts of this manuscript are dated at different periods. The relevant page is dated in Bergmann/Stricker (2005:1259) to ca. 1000.

<sup>41</sup> For dating of these manuscripts, see Förster (1966:4) and Bergmann/Stricker (2005)

### 3.6 Proposed explanations of OHG *-mēs*

The Old High German first person plural ending *-mēs* has been widely discussed in the literature for almost two hundred years. Scholars have mostly focused on explaining the origin of the ending and drawn on various methods of historical linguistics for that purpose. Most attempts have centered on deriving the ending from the Proto-Indo-European verbal paradigm (see e.g. Roberts 1935). Other ideas have also been put forth, e.g. *-mēs* being an enclitic pronoun (e.g. Prokosch 1939 and Hollifield 1980) or a mix of multiple plural markers (Shields 1996). Most of these theories are problematic and involve complex phonological and/or morphological developments which are difficult to justify.

#### 3.6.1 *Early attempts*

The first one to tackle the problem of the OHG 1<sup>st</sup> person plural ending was probably Grimm (1819:856). He wanted to derive the endings *-amēs*, *-umēs*, *-emēs* and *-imēs* and Gothic *-am*, *-um*, *-áima*, *-eima* from earlier *\*-ams*, *\*-ums*, *\*-aimas* and *\*-eimas*, which he compared to the difference between Gothic adjective nom. sg. masc. *blints* vs. OHG *plintêr*. Grimm seems to be suggesting the existence of a dual system of verbal endings (and nominal endings) in the Proto-Germanic stage where the regular endings could be strengthened by an addition of some extra morphology, but the process and its details are unclear. Loewe (1911:100) assumed that the OHG ending derived from a PIE lengthened grade, namely PIE *\*-mēs*. With the ending bearing an accent as was the rule of athematic verbs. This assumption plays a role in the later hypothesis of Krahe (1957) (see 3.6.2.2 below). Mausser (1933:1010) also states that if we are dealing with an ending that has a PIE origin we must assume a PIE lengthened grade as an intensifier (Germ. *zur Intensivierung*) serving as the basis of the OHG form. The main problem with these ideas is that there is no independent evidence for PIE ending *\*-mēs*. The concept of lengthened grade as a morphological

feature of endings is also difficult to justify. The evidence for the long vowel is based solely on OHG.

Another fundamental problem with these theories is the preservation of the final *s* in West-Germanic. We have already discussed that final *-s* became *-z* in Proto-Germanic so cases that seem to contradict this claim need to be explained by other means. A neat way to bypass the problem of the final *-s* is to assume the some extra morphology following the proto-ending *-mēs*. A relatively straightforward way of doing that is to assume a proto-ending *-mēsi*, which can simply be described as *mēs* + the deictic particle *-i*. This was the position of Wilmanns (1906:7), who wanted to link together the OHG and the Old Irish ending *-mi*. This ending could theoretically go back to PIE *\*-mēsi* but could as well be explained as a reflexive of the more regular ending *-mesi* (i.e. the expected ablaut grade + deictic *i*) as he himself recognizes “air. lässt sich sowohl auf *mesi* als auf *mēsi* zurückführen”. Although this theory is a slight improvement upon the previous one it still assumes the problematic ending *-mēsi* for which we have no real basis.

Another early theory was set forth by Scherer in his *Zur Geschichte der deutschen Sprache* (1868). This theory is interesting as it tries to combine the various endings found in the daughter languages. Scherer assumes a perform PIE *\*mansī* which he assumes is a blending of *-masi* and *-man* endings or (this theory is set forth before the discovery of the syllabic nasals and when Sanskrit vowel quality was believed to reflect PIE vowels best). This form would have been in Germanic *\*-mensi* (which is actually what we could imagine the PIE form would look like assuming, unlike Scherer, that Sanskrit does not conserve the PIE vowel system). The nasal would then have been dropped and the vowel lengthened.

Roberts (1935) criticizes this theory on the basis that nasal loss and lengthening of this sort happened in Ingvaemonic and not in OHG, e.g. OE *gōs* vs. OHG *gans*. However this is a fundamental misunderstanding of Scherer’s idea. While it is perfectly clear

that nasal loss with a compensatory lengthening effect occurred in Ingvaeonic languages it has little to do with the process Scherer describes, which must have occurred much earlier although it has the same surface realization as this Ingvaeonic sound change. Perhaps this process was even limited to unaccented syllables (if Germanic). Therefore we assume that Scherer's scenario is quite independent of the later Ingvaeonic sound change. Even so, it does not get rid of the problems associated with this form, as any further examples of this early nasal loss are lacking, as is independent evidence for the ending *\*-mensi* in related languages.

### 3.6.2 *More recent attempts*

More modern approaches have been developed and elaborated on from the middle of the 20<sup>th</sup> century onwards. They have been consolidated here into five basic theories about the possible origin of the ending *-mēs*, which represent somewhat different ways of looking at this problem. These theories are based on new PIE evidence to compare with the OHG form as well as exploring various secondary analogical processes, both in early Germanic and within OHG itself. In what follows we will discuss these theories in more or less the same order as they were set forth.

#### 3.6.2.1 *Roberts' middle paradigm*

Many of the attempts to explaining OHG *-mēs* have focused on trying to find a plausible origin of the ending within the verb material of PIE. As many of the 19th century scholars quickly realized this is not an easy task. It is clear that neither the regular primary nor secondary active endings can be direct predecessors of OHG *-mēs*. But what about the other 1<sup>st</sup> person plural endings?

Murat Roberts (1935) was the first one to explore this possibility and takes a novel approach to the problem of OHG *-mēs*. He ventures to derive this ending from a PIE middle paradigm which is otherwise not attested. His starting point is the regular

primary endings of active, i.e. *\*-mi*, *\*-si* and *\*-ti* and the primary middle endings, which he reconstructs as *\*-mai*, *\*-sai* and *\*-tai*. He takes these two sets of endings to be “reductions” of older fuller endings, namely *\*-mei*, *\*-sei*, and *\*-tei* in the active and *\*-mēi*, *\*-sēi* and *\*-tēi* in the middle.<sup>42</sup> The plural of the middle showing these fuller endings would be *\*-mēs(i)*, *\*-thē* and *\*-ntēi*. Thus we would have a potential ancestor of our problematic OHG 1<sup>st</sup> person plural.

This conclusion that the regular primary endings are reduced or zero-grades of full grade form is very hard to justify, mostly because there are no attested forms that could reflect such endings in any of the daughter languages. We have ample evidence of the *hic et nunc* particle. *-i* being added to verbal endings and the presence or absence of this particle is generally considered to be the formal difference between some primary vs. secondary endings. Of course this 1<sup>st</sup> person plural form is nothing like the actual attested middle endings in the daughter languages, e.g. Gr. *-μεθα* and av. *-maide*, which point to a PIE ending *\*-med<sup>h</sup>h<sub>2</sub>* (cf. the discussion in section 2.2.3.1). Roberts is pretty vague when addressing this obvious problem and states that the “the 1-2 pl. seem to have interpolated a consonant, IE *dh*, into the active forms to supplant the *s* and *th*, and thus produce a new sort of middle” (Roberts 1935:227). After this “interpolation” happened the “older” form *\*-mēs(i)* was perhaps still around and could theoretically be the ancestor of OHG *-mēs*. However Roberts assumes that this is not the case but prefers to trace the origin of the OHG ending to an even more complicated reconstruction *\*-mēsai* or *\*-maisai*, which is in his opinion a result of further development of this middle paradigm on its way to Germanic, with the final *-ai* having spread from the singular. By this argumentation we find in “Primitive Germanic” a middle paradigm like:

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<sup>42</sup> It not totally clear to me if these are PGm. or PIE reconstructions or both.

**Table 3.6-1**

	<b>Singular</b>	<b>Plural</b>
1 <sup>st</sup>	bera-mai	bera-maezai,-maizai
2 <sup>nd</sup>	bera-zai	bera-ðai
3 <sup>rd</sup>	bera-ðai	bera-nðai

The second and third singular and the third plural of this paradigm are preserved in the Gothic middle, *bairaza*, *bairada* and *bairanda* after the monophthongization of final -*ai* to -*a*. Roberts finally hypothesizes that there must have been an OHG middle corresponding to this which would have looked like this with no trace of the final vowel:

**Table 3.6-2**

	<b>Singular</b>	<b>Plural</b>
1 <sup>st</sup>	bera-m	bera-mēs
2 <sup>nd</sup>	bera-s	bera-t
3 <sup>rd</sup>	bera-t	bera-nt

In this alleged OHG middle paradigm all the forms are except 1<sup>st</sup> plural are ambiguous between active and middle. This resulted in the middle formally disappearing and the only form that was formally different from the active, namely the 1<sup>st</sup> person plural -*mēs*, subsequently took on an active meaning.

The scenario Roberts portrays is highly improbable and requires a lot of intermediate stages for which we have no independent evidence. As mentioned above, there is no indication that the endings -*mei* and -*mēi* and other such “full grade” endings ever existed. The whole story about the interpolation of *dh* and the split of the middle into two types is hardly plausible. The same can be said about the later modification of the “older” type and the spread of -*ai* to the plural endings as well as the sound-laws in Germanic and the collapse of middle and active in OHG. Are we to believe that all

these major developments took place without the intermediate stages leaving a single trace anywhere? To invent a totally radical new middle category for the whole of Indo-European in order to explain a single OHG form is rather far fetched. It creates many unnecessary complications and generates far more problems than it actually sets out to solve.

### 3.6.2.2 *Indo-European inheritance*

This hypothesis assumes a special pre-OHG development of Proto-Indo-European verbal endings. The basic idea, which was first put forth by Brugmann (1904) and later refined and elaborated on by Krahe (1957), is that the OHG verbal ending *-mēs* came into existence as a result of a merger of two other endings. In Gothic we have subjunctive forms in 1p. pl. *-ma* which could reflect Proto Germanic (PG) *\*-mē*. In the period of Proto-Germanic there were then two 1p. pl. endings, namely this subjunctive ending *\*-mē*, probably a variant of the secondary ending PIE *\*-me* (see discussion above), and the regular continuation of PIE *\*-mes*, i.e. PG *\*-mes* (sic!). Before the shortening of the latter to *-m* according to regular sound law, there arose the form *\*-mēs*, with analogical lengthening of the vowel of *\*-mes* by influence from *\*-mē*. This form only emerged in certain dialect of Germanic, namely the ancestor of OHG. "...in dem Teilgebiet des Frühgermanischen ein, aus welchem später das Althochdeutsche geworden ist." (Krahe 1957:57).

Krahe (1957) sets out to argue further for this theory and to dismiss any contrary evidence. He discusses other similar analogical changes, e.g. certain OHG masculine *n*-stems case forms, e.g., gen. pl. *hanōno* and dat. pl. *hanōm* (vs. Gothic *hananē* and *hanam*), which were analogically influenced by the feminine *n*-stems: gen. pl. *zungōno*, dat. pl. *zungōm*. In Krahe's opinion this is parallel to the development of PG *\*-mes* to *\*-mēs* by influence from *\*-mē*.



The main potential counterargument against this development is the preservation of the final *-s* or *-z* which regularly is dropped in Old High German (Roberts 1935:221). Krahe (1957) points to further evidence for possible preservation of a PIE final *\*-s* in Germanic. The ending *-mēs* goes together with other forms with final *-s*, e.g. 2p. sg. opt. OHG (pres. *berēs* and past. *bārīs*). However, there are also forms like nom. pl. *a-*stem OHG. *taga* which go back to PG *\*dagōs*. He draws on Verner's law to help explain these contradictions. The voiced variant of */s/*, i.e. *\*-z* got lost in West-Germanic *\*dagōz > taga* but the voiceless *\*-s* was preserved, at least after long vowels (Krahe 1957:58).<sup>43</sup>

In order for *-mēs* to go back to a voiceless *\*s* we have to assume a condition that was not susceptible to Verner's law. This leads Krahe to assume that the *mēs*-ending was accented. He points out that athematic verbs, like *tuon*, *gān* and *stān* had accented endings as Loewe (1911) had done earlier.<sup>44</sup> Unlike the development in other branches, where these verbs formed a marginal category, this class of verbs was preserved as such in OHG. Despite their dwindling numbers, there is evidence in OHG that the small class of athematic verbs influenced the bigger class of thematic verbs. This is evident, e.g., by the spreading of the 1<sup>st</sup> person singular athematic ending *-m* to the 2<sup>nd</sup> and 3<sup>rd</sup> class of weak verbs, e.g. *salbōm* and *habēm* (Krahe 1957:60, cf. 2.3.3.3 above). The assumption is then that the same would have happened with the 1<sup>st</sup> person plural ending.

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<sup>43</sup> Apparent counterexample to the *-s* being preserved after short vowels are verb forms where the voiceless variant *-s* seems to have also dropped (e.g. 2<sup>nd</sup> p. sg. past of strong verbs, *zugi*, *nami* which he takes as ultimately going back to a thematic aorist with accent on the ending. (cf. Krahe 1957). However tracing the origin of these forms to the PIE aorist is controversial and other ideas that don't require the loss of final *-s* are more plausible (cf. Polomé 1964:870-880, cf discussion in 2.3.3 and 3.3.1 above).

<sup>44</sup> This argumentation is undermined by the fact that *gān* and *stān* were not originally athematic, but regular *j*-presents, i.e. *ga(j)e/a-* *sta(j)e/a-*. The verb *tuon* < *\*dōn* was reduplicated and had accent on the reduplicating syllable throughout the paradigm.

There are several problems with this idea. First of all there is the basic assumption that final *-s* survived in Germanic. We mentioned in section 3.3.1 that there is good evidence for assuming that *-s* regularly developed to *-z* in Proto-Germanic in final position, which then was dropped in West-Germanic. As mentioned before, we don't really need Verner's law here to explain an alternation if there wasn't any to begin with. If the development of PIE *\*-s* to a PG *\*-z* is a regular sound law then the whole argumentation of Krahe does not work.

Even if we entertain the possibility of two different outcomes of PIE final *-s* as both Germanic *-s* and *-z*, this hypothesis still has other problems. One is that there are fundamental differences in the analogical spread of the 1<sup>st</sup> person singular ending *-m* vs. the 1<sup>st</sup> person plural ending *-mēs*. The spread of the 1<sup>st</sup> person singular ending of the athematic verbs must have been motivated by factors such as vowel length, since it is limited to those weak verbs that had a long stem vowel. It probably starts when the 2<sup>nd</sup> class of weak verbs is influenced by the verb *\*dōn* (cf. Cowgill 1959) and spreads from there to the 3<sup>rd</sup> class. The 1<sup>st</sup> person plural ending is not limited to any particular classes of verbs but is attested across the board. This makes it clear that the motivation for the analogical spread of the 1<sup>st</sup> person singular must have been different than the motivation for the analogical spread of the 1<sup>st</sup> person plural. Although this does not exclude the possibility that the ending *-mēs* originated with the athematic verbs it is unclear what the motivation for its spread to other verb classes would have been. It is clear that the analogical spread of the 1<sup>st</sup> person plural ending is fundamentally different than of the 1<sup>st</sup> person singular ending.

Another counterargument can be mentioned that Roberts (1935:221) had previously pointed out in his review of older theories. It is possible that such a strongly stressed PG *\*ē* would have undergone the regular West Germanic development of stressed *\*ē* to *\*ā*. There is indication that some long PG *\*ē* in non-root position developed to a long *ā* in NW Germanic in such cases, e.g. *swestar* 'sister' on a Runic inscription (cf.

Stiles 1984). Krahe's answer to this is simply that different rules applied to primary stressed initial syllables as is evident by this form and others such as 2<sup>nd</sup> sg. weak past, e.g. as. *nerides* from PIE *\*-dhēs* (Krahe 1957:60). However, this seems to add a complexity which it would be better to avoid.<sup>45</sup>

This hypothesis also makes other basic assumptions which are perhaps not as straightforward as they appear to be. One of them is the existence of the PG secondary ending *\*-mē*. As discussed above this form cannot be a direct reflection of the regular PIE secondary ending *\*-me*. If we analyze it as derived from the regular secondary ending we have to assume some process of lengthening, which is not easily explainable.

While it is clear that the Gothic ending *-ma* has to go back to an *m* + a long vowel (or a diphthong) in PG, it is not a given that this has to be *\*-mē*. A different origin is suggested by Prokosch (1939), who explains this ending as a Gothic innovation, namely the addition of a particle *-a* which is also found in certain pronominal forms, e.g. Gothic *þata* (cf. Sanskrit cognate *ā*, a postposition and an enclitic interjection) (Prokosch 1939:216). He subsequently reconstructs the preform *\*-oĩ-men-ā* as a possible ancestor of Gothic 1p. pl. opt. ending. *-aima*. Although this form is very unlikely ever to have existed, the point remains that *\*-mē* is not the only possible predecessor of Gothic *-ma*.

Perhaps the biggest problem with this theory lies in the formulation of the Proto-Germanic analogical development. Even if we assume that PG had two endings *\*-mes*, and *\*-mē* which created *\*-mēs*, it is not at all clear in Krahe's (and Brugmann's) discussion under what circumstances such an analogical process took place. Unlike the process which Krahe takes as parallel, i.e. the OHG masculine *n*-stems, we cannot set up an analogical process where the situation arises for the verb forms to be

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<sup>45</sup> If the development of PG *\*ē* to NWG *ā* was not limited to main accented syllables it would entail that the weak preterite ending cited here can't go back to a *-dhēs*.

reinterpreted as pointed out by Bech (1962:195). The *n*-stem process takes place in stages where we can postulate each stage in the development. First we have the neuter forms established on the basis of patterning found in the feminine forms. This modified neuter paradigm gives rise to analogical masculine forms. The *n*-stem process can be accounted for with a relatively straightforward four part (six part) analogy, in two stages, which are shown in Figure 1.

Fem.		
nom. sg.	gen. pl.	dat. pl.
<i>zunga</i>	<i>zungōno</i>	<i>zungōm</i>
Neut.		
nom. sg.	gen. pl.	dat. pl.
<i>herza</i>	$X^1$	$X^2$
	$X^1 = \textit{herzōno}$	$X^2 = \textit{herzōm}$
Neut.		
gen./dat. sg.	gen. pl.	dat. pl.
<i>herzen</i>	<i>herzōno</i>	<i>herzōm</i>
Masc.		
gen./dat. sg.	gen. pl.	dat. pl.
<i>hanen</i>	$X^1$	$X^2$
	$X^1 = \textit{hanōno}$	$X^2 = \textit{hanōm}$

**Figure 1:** Analogical changes in *n*-stems

No similar processes can be assumed for the contamination of the verb endings.

There is perhaps a possibility of finding better evidence for the existence of the PG ending *\*-mē* and thus salvage part of this theory. We have mentioned that if the 1<sup>st</sup> person plural perfect ending PIE *\*-meH* had survived in Germanic it would have come out as PG ending *\*-mē*. Although this ending has the right phonological shape to be the ancestor of the Gothic optative ending it is hard to postulate a process in PG or pre-Gothic where this perfect ending would have taken on the role of the present/aorist

secondary ending. The ending of the 1<sup>st</sup> person plural of the Gothic preterite is in line with rest of Germanic and points to the development from PIE *\*-me* > PG *\*-m* > Gothic *-um*. If the perfect ending *\*-meH* is in any way responsible for the Gothic ending we would have to assume a period in PG where the long perfect ending *\*-meH* and the regular secondary ending *-me* were in free variation in the 1<sup>st</sup> person plural. Both could be used as secondary endings in the present/aorist and both could be used in the preterite. Gothic then generalized one of these two variants, as it happens, exactly opposite to their historical origin, the long ending got generalized as the secondary ending and the short ending got generalized as the perfect ending. In the rest of the Germanic languages the short ending was generalized for both categories. This could account for the PG ending *\*-mē* and explain the Gothic ending *-ma*, but does not make the analogical process behind the long vowel in OHG *-mēs* any clearer.

### 3.6.2.3 *OHG analogy*

The problems associated with deriving the *mēs*-ending from a PIE source have caused some scholars to totally rethink their approach to this problem. As we have seen by our survey of the previous attempts, the only evidence we have for this ending comes from OHG itself. It therefore seems logical to seek an explanation within OHG. This is the main motivation for an idea put forth by Bech (1962), who traces the origin of *-mēs* to a secondary analogical development within OHG.

The faulty analogical process of Krahe is criticized by Bech (1962). He points out other problems with Krahe's analysis, such as problematic chronology. It seems strange to posit a process restricted to OHG before Verner's law took place, which we would have to accept if we believe Krahe's story. The restricted distribution of the *mēs*-forms leads him to pursue a different analogical solution within the context of Old High German itself.

Within OHG we would have had two forms in the first person singular indicative forms, e.g. *bintum* and *bintumēs*. Taking this at face value, the difference between the two forms is the addition of some element *-ēs* to the regular 1<sup>st</sup> person plural ending. Bech (1962) finds a source for this *-ēs* element by linking the 1<sup>st</sup> person plural forms to the forms of the imperative and the subjunctive.

According to Bech (1962) the “expression of command” (Germ. “Ausdruck der Aufforderung”), could be rendered not only by the regular imperative, but also by the subjunctive. In the 1<sup>st</sup> person plural we have the imperative, or adhortative, expressed both by the plain indicative *bintum* as well as the subjunctive form *bintēm*. In the same way the second person singular has both forms used in similar expressions: imp. *bint* as well as subjunctive *bintēs*. On the other hand, there was no formal distinction between indicative and imperative in the 1<sup>st</sup> person plural, both forms would have been *bintum*. On the basis of the singular we can form a new imperative or adhortative form (Bech 1962:199).

Sg.		Pl.	
imp.	<i>bint</i>		<i>bintum</i>
opt	<i>bint-ēs</i>		<i>x</i>
			<i>x=bintumēs</i>

**Figure 2:** Analogy of the 1<sup>st</sup> person plural ending.

We thus end up with three different forms in the 1<sup>st</sup> person plural with imperative/adhortative meaning: *bintum*, *bintēm* and the new *bintumēs*. This caused the distinctions in the verb system to be obscured. As these forms were synonymous in the imperative/adhortative the *mēs*-forms became synonymous to the *m*-forms in the indicative as well. In a similar manner, forms like *bintum(ēs)* also took on the subjunctive function (Bech 1962:204-205).

This process was aided by other developments in the verb system around the same time. The rise of *-m* as a first person singular marker created some complications in the verb paradigm. This ending was originally limited to athematic verbs but also spread to the weak verbs and even to strong verbs (Bech 1962:205-206). As a result the distinction between singular and plural was lost for many verbs, e.g. 1.p. sg. *tuom* 1p. pl. *tuom*, 1p. sg. *bintu-m* 1p. pl. *bintum*. This loss of number distinction led to the disappearance of *-m* as a 1<sup>st</sup> person plural marker (ibid.). The alternative forms *bintēm* and *bintumēs* took over completely. This is the situation we have in the oldest OHG texts. Different dialects reflect different distributional rules, e.g. in Otfrid the original subjunctive forms have taken on indicative function and the *mēs*-forms are exclusively adhortative (Bech 1962:210). In other dialects the *mēs*-forms became dominant.

By assuming this somewhat complicated analogical scenario, Bech is able to explain the rise of *mēs*-endings and interpret them in the wider context of the OHG verb system. It is attractive to link two separate phenomena as the spreading of *-m* as a 1<sup>st</sup> person plural marker and the development of the *mēs*-ending. It also gets rid of any messy phonological processes and the chronological problems of assuming special PG preforms unique to OHG.

Although Bech's story is appealing in many ways, it is not without faults. It is troublesome that he does not provide any concrete examples of such a use of the subjunctive. The use of the subjunctive in imperative function is known from other Germanic traditions; for instance there are some examples in the Gothic bible translation for subjunctive used for Greek imperative; cf. Krause (1968:217). In the vast majority of cases one would expect the second person command to be conveyed through the use of the imperative mood and in the case of second person singular the verb form that is unique to that mood.

Furthermore, it is hard to think of any parallels where a second person singular serves as the source for a new 1<sup>st</sup> person plural form, especially in the absence of a new 2<sup>nd</sup>

plural form. Even if we accept the analogical process as indicated in (1) it is hard to see why a category which already could be expressed by two alternative forms, (indicative and subjunctive) would need to add the third one. Another problem with this approach is the importance of the 1<sup>st</sup> person pl. imperative/adhortative. This category has to be considered rather specialized and probably not a likely source for playing such a key role in shaping the forms of the present indicative.

#### 3.6.2.4 Enclitic pronoun

Other ideas on how the OHG *mēs*-ending came into being seek to connect it somehow to a pronoun. Kuhn (1869:322) suggests a PIE pronoun *\*majas*, of unclear status. Pronominal origin is also proposed by Paul (1877:421-423). He suggests that the pronoun involved was some form of the first person pronoun *\*weis*. A later proponent of a similar idea is Prokosch (1939) in his handbook on Germanic. He supposes the univerbation of the verb ending and the following enclitic personal pronoun and gives the example of *bhèndhomos* + *wéis* > *bìndama(zw)ǣ̃*. The pronoun was accented preventing Verner's law and later the accent was retracted to the root with monophthongization of the *ai* to *ē* (Prokosch 1939:212). The main problem with this idea is that it involves the unique development of *azwi* to *ai* in a syllable that was slightly accented.<sup>46</sup>

The same basic idea is discussed and formalized by Hollifield (1980), who states that the *mēs*-forms are “rarely followed by a subject pronoun” and that one can therefore interpret the ending as including an enclitic pronoun. Hollifield suggests that the 1<sup>st</sup> pl. imperative ending in Germanic continued the secondary ending PIE *\*-me*<sup>47</sup> and accordingly reconstructs the 1<sup>st</sup> plural form of the verb ‘to bear’ (PIE *\*bher-*) as

<sup>46</sup> Perhaps this idea could be salvaged by assuming a reduced form of the ending when followed by a pronoun. This is the case in Old Norse 1<sup>st</sup> person plural *-um* which loses its final consonantal element when followed by the pronoun, e.g. *berum vér* becomes *beru vér*.

<sup>47</sup> Hollifield actually reconstructs this ending as *\*-me/-mo* with an alternative *o*-grade.



*\*bhéromo*  $\bar{u}(e)is > bhéromou\check{s} > bhéromois$ . This ending would have become *\*-mais* in Germanic and result in OHG *-mēs* (Hollifield 1980:150). This simplifies slightly the process set forth by Prokosch but still requires a rule which eliminates the *w* between vowels. Hollifield has to assume a special sound law for these purposes and by which he considers the matter explained. The formulation's weak point is that this has to be a Proto-Germanic alternate form that got lost in all branches of Germanic except in OHG, where it became dominant. The shape of the pronoun is also problematic in light of our discussion of the development of PIE *-s* to PG *-z*. The expected starting point of the pronominal form would thus be *\*w(e)iz*, which would not give the desired end result.

Another variation on this pronominal idea has been formulated more recently. Boutkan (1995) wants to interpret the ending *\*-mē* as having incorporated the dual 1<sup>st</sup> person pronoun PIE *\*weh<sub>1</sub>*.<sup>48</sup> "We may tentatively reconstruct *\*bheromo/e ueh<sub>1</sub> > \*berama/e mē > beramē* which later influenced *\*-mes (>> \*-mēs)*" (Boutkan 1995:316). This would give added value to the basic idea of Krahe and others discussed above in section 3.6.2.2 where the main problem was the lack of evidence for this ending *\*-mē*, which was the source of the long vowel in *\*-mēs*. If we accept this idea we would have better way of explaining the situation in Proto-Germanic resulting in the blending of these two endings. He further modifies Krahe's formulation slightly by assuming a Germanic spread of the hic et nunc particle *-i* to explain the preservation of the final *s*, i.e. *-mēs* from older *\*-mēsi*.

Even though this might seem like an improvement, there are still serious problems with this solution. Boutkan himself acknowledges this and mentions the fact that there is little if any Germanic evidence for this dual pronoun *wē*. He also mentions that even if we expect the dual to be involved here it is not clear why our starting point would be

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<sup>48</sup> This possible origin of the long vowel in the dual pronoun is also mentioned by Hirt (1932:139).

*\*bheromo/e ueh<sub>1</sub>* rather than *\*bheromes ueh<sub>1</sub>*, the regular primary ending rather than a secondary ending. Nonetheless he prefers this over any other solution proposed in the literature, although it seems to me that the faults he points out are enough reason to have serious doubts about the involvement of this dual pronoun, not to mention the problem of formulating the blending analogy as discussed above in section 3.6.2.2.

### 3.6.2.5 *Shields' theory of multiple plural markers*

The latest contribution to the discussion of possible origin of *-mēs* is found in Shields (1996). His theoretical starting point is something he calls the “new image” of Indo-European morphology, which involves a reconstruction of three stages of IE, namely IE I, IE II and IE III “without spatial or temporal definition” (Shields 1996:285). The earliest stage of these three (IE I) would be an uninflected language. The second stage (IE II) would be a rather minimally inflected language, mostly by use of endings but not “opposition of stems”. This period is inherited by Anatolian. The third and final stage (IE III) would be “practically that of traditional reconstruction”.

According to this model most of the inflectional structures we normally associate with a common ancestor took place in a period of dialectal differentiation. The verbal morphology took shape and developed during this dialectal phase. In line with this way of thinking Shields assumes that Germanic split away from many of the other Indo-European languages before the development of certain categories, e.g. the subjunctive and the optative and even before some of the endings were fully developed.

During this dialectal stage of Indo-European the 1<sup>st</sup> person plural did not exist in a uniform fashion but was in the process of being created by extending the 1<sup>st</sup> singular forms (originally number neutral) by adding non-singular morphemes such as *\*(e/o)s* and *\*(e/o)n* (Shields 1996:285). The first of these morphemes is the same as the common plural marker we find in the nominal system, i.e. Skt. nom. pl. *devās*. The

second one was also allegedly present in the nominal system as is evident by Toch *riñ* ‘cities’ (Shields *ibid.*) and some duals (e.g. *vrkā*) which according to this view go back to a \**ǵ* “(short vowel) plus nasal consonant in preconsonantal sandhi with subsequent generalization” (Shields:1996:287). Furthermore he assumes that there were sandhi variants of the \*-(*e/o*)*n* ending floating around, namely either \**-ē/ō* or simply \**-e/o* which added to the mix of multiple plural markers. The argument for this is convoluted and complicated. Shields writes (page 287-288) “I propose that the contamination of original sandhi variants in \*-(*e/o*)*N* and \**-ē/ō* also produced a suffix in \**ǵ*, i.e., a form which shows the short vowel of the prevocalic variant and the loss of the nasal evidenced in the preconsonantal variant, with the latter adopting the vocalism of the former”. This seems to be an unnecessary complicated reconstruction and rather *ad hoc*.

The assumption then is that this process produced a great deal of 1<sup>st</sup> person plural variants and this variation continued during the period of later dialectal groups (e.g. this is why we find both -*μας* and -*μεν* in Greek dialects). Shields assumes that Germanic inherited at least two variant first person plural morphemes, namely the well known -*mes* (i.e. *m* + *es*) as well as -*mē* (i.e. *m* + *-ē/ō* the sandhi variant of -(*e/o*)*n*) which still survives in Gothic as a subjunctive ending. The point is, though, that this -*mē* was not a specifically designated subjunctive ending until later. Originally it was just another variant of 1<sup>st</sup> person plural and in no way different in meaning from -*mes*. During the Germanic era the process of multiple plural markings was still operating and creating new alternative endings. It was then that Germanic created yet another alternate form for the 1<sup>st</sup> person plural, namely a contamination of -*mes* and -*mē* which came out as -*mēs*. At a later period in Germanic when the dialects were forming these endings then got assigned to their individual place where they are found in the oldest written sources.

This whole scenario seems highly implausible and not at all convincing. Many of the details are missing and some of the cornerstones of the theory seem to be based on shaky foundations, e.g. the evidence for a general plural, or non-singular, morpheme *-o/en* and its manifestation in the nominal system. The dual can easily be reconstructed without any *n*-element, which leaves us with Tocharian plurals as the main evidence for this plural morpheme. Relying on Tocharian as the sole indicator of any phenomenon in the nominal system is a rather risky venture. The Tocharian nominal system is notoriously difficult to deal with as it has been totally remodeled c.f. Krause (1952) and has lost most of its Indo-European characteristics.

There are also problems with the bigger picture. Leaving aside the whole business of the three stages of Indo-European (which seems to be totally unnecessary complication),<sup>49</sup> we are left with assuming that during a common period of PIE there was a time when the 1<sup>st</sup> person plural category could be expressed by six or ten or even more endings that were in more or less free variation. From a purely typological point of view this seems to be rather unlikely. What is even more unlikely is the chronological assumption that at this moment all of the major dialects of PIE were formed each inheriting a bunch of those endings and assigning them various roles. It is also hard to imagine why in some dialects such as Germanic there was a need to create even more endings via analogical processes to add to the seemingly overflowing inventory of 1<sup>st</sup> person plural endings. If we wanted to assume an explanation that would lean towards a similar scenario Shields is proposing, we would rather want to assume that each of these endings had its place in the verb system of common PIE and later secondary developments within the dialects caused the system to be consolidated and rearranged through analogical processes. The formal problems of such an

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<sup>49</sup> The main point of this complicated and bizarre system seems to be to account for the peculiarities of Anatolian which can be done in a much neater way by assuming a drastic restructuring in its early stages.

approach are however ample and many and none such attempt will be made here. Overall Shield's theory adds very little to our understanding of the problem.

### *3.6.3 Results of previous accounts*

As we can see from the discussion above the competing theories about the origin of OHG *-mēs* are all problematic in one way or the other. All the approaches reviewed so far have taken certain basic facts for granted, such as the length of the vowel. It seems to me a plausible approach to look carefully at the attested forms and their distribution in the Old High German texts to see whether they corroborate or disprove any of the accounts reviewed so far. A good start is to examine all the basic assumptions which are commonly held about this ending and see if rigorous scrutiny of the facts can bring us any closer to a satisfying solution to this problem.

## 4 Cod. Sang. 916 and denotation of long vowels

### 4.1 Introduction

As is clear from the discussion in the previous chapter the origin and development of OHG 1<sup>st</sup> person plural *-mēs* is a complicated matter and none of the different theories proposed for over a century have resulted in a satisfactory solution. Therefore it is necessary to look further into the background and history of this particular ending and examine the facts on which the assumptions of previous scholars are based.

### 4.2 Historical Germanic linguistics

The story of the development of Germanic needs to be reevaluated constantly for several reasons. Our knowledge and ideas about the structure of Proto-Indo-European have changed and advanced in the past few decades and continue to do so. This reason alone demands regular review and reexamination of the Germanic linguistic evidence. At the same time our knowledge of linguistic theory and individual components of language has greatly improved. All this provides us with better tools that we can use to clarify certain aspects of the history of Germanic languages.

Another reason why we need to revise our ideas and theories about historical development of Germanic has to be mentioned as well. One important component of diachronic language studies is the presentation of the basic facts: the texts. The texts contain the linguistic information all other theorization and research is based upon. We are constantly learning more about the texts from where our data comes through better editions and easier access to them. Examining philological evidence no longer requires a trip to far-away museums or libraries to look at manuscripts, but can be done with relative ease by searching and categorizing electronic versions of reliable editions and examining high quality resolution images of manuscript pages over the Internet. All

these resources make linguistic research on original material a feasible option. This is an added motivational factor to take on the seemingly daunting task of going to the source material to reevaluate linguistic claims by reviewing the evidence behind previous assumptions.

There are some caveats we need to be aware of. All research into historical Germanic linguistics is ultimately based on the analysis of texts in each individual language or dialect of Germanic. The number of manuscripts and hence the number of texts is limited and it is within those limits that any historical linguistic analysis of a Germanic language has to be contained. This is both one of the advantages and the greatest disadvantage of historical Germanic linguistics. We know exactly what data we are dealing with but at the same time we can't verify our findings by gathering additional data and often have to base our assumptions on rather poor or limited evidence.

### **4.3 Reviewing the evidence and examining the assumptions about *-mēs***

In our discussion so far about the ending *-mēs* we have seen that all of the previous accounts have assumed the ending to be *-mēs* with a long *ē* even though most texts do not indicate this. None of the previous scholars expressed doubt about this basic assumption. If the overwhelming majority of texts do not distinguish between short and long vowels, why do we assume that the ending written as *-mes* actually represents *-mēs*?

The phonology of ancient languages can be deduced from several sources. The most straightforward approach is simply to analyze texts that have been preserved and search for direct evidence in the orthography. Often this method is difficult, as we have to figure out the frame of reference of the particular alphabet, i.e. how it maps onto phonological reality. Orthographical irregularities and inconsistencies add to the complexity of the matter. Figuring out and interpreting the orthography usually works

best when combined with some other methods such as the ones that now will be mentioned.

Besides the actual analyzing of texts there are three methods of indirect evidence that can be applied. The first method is finding *comparative evidence from related languages*. This entails comparing word forms and grammatical categories between related languages and reconstructing preforms. This is the method we have used in our discussion of the verb endings of Germanic and other Indo-European languages and their origin in PIE. Another similar method is finding *comparative evidence from later stages of the language*. This entails comparing word forms and parts of speech to their descendents in later forms of the same language. A distinction that is not visible in the orthography of old texts might still be present in later forms of the language. Finally there is the method of analyzing *verse and metre*. Often metrical constraints such as rhyme and syllable restrictions can provide evidence with regard to phonological features such as length of vowels. All these factors come into play when we reconstruct the vowel system of OHG and the phonological contrasts that must have been relevant.

All these methods, i.e. comparative, philological and metrical, can be used when trying to establish the OHG phonological facts (cf. Braune 1876). However they are of limited use when it comes to the ending *-mēs*. As we have concluded, comparison with related languages shows no certain results. There is no direct parallel ending found in any other Germanic or Indo-European language. The fact that the ending disappears early and does not survive into later stages of German also makes any comparison of younger stages of the language impossible.

Evidence from verse is difficult to establish due to the flexible nature of OHG metre. OHG verse is constructed in one of two basic metres: alliterative and rhyming. The alliterative metre is based around alliterative initial syllables and is very flexible when it comes to unaccented syllable weight and structure. A more promising avenue to



pursue would be the rhyming verse, whose most important representative of the period is the work of Otfrid (cf. the edition of Kleiber 2004). If there were rhyming restrictions on the vowel length we could deduce information about the quantity of the verbal ending. Unfortunately the rhyming poetry is not helpful to us. The only instance where the syllable length is important in the rhyme is in so-called “feminine” (final disyllabic) lines where the penultimate syllable has to be long (cf. Bostock 1976:325). Obviously this does not apply to any forms with the ending *-mēs*, as the long syllable of the ending would never be in penultimate position. We may therefore conclude that long unaccented syllables are not pivotal to the metrical structure at least when they appear in final syllable and therefore cannot be used to infer any information about the shape of the verbal ending.

The result is that we have to rely upon direct evidence from texts. The evidence for the length of the vowel in the ending *-mēs* is the indication of length in two key texts, namely the Benedictine Rule and the translations of Notker. These texts are separated by about 200 years; the Benedictine Rule is from the 9<sup>th</sup> century whereas Notker is from around year 1000. Both are written in the dialect of Alemannic. Those two texts are the only ones in the entire OHG corpus where vowel length in unaccented syllables is denoted (partly) systematically. The fact that in many cases these different texts show the same endings with long vowels is a good indication that they are actually reflecting some sort of a phonological phenomenon. In almost all cases comparative evidence supports this as well.

Even though the supporting evidence is missing in case of the ending *-mēs*, the textual evidence at first glance seems convincing. If these two texts agree on which categories have unaccented long vowel it seems likely that this reflects a phonological fact. When we take a closer look at this problematic 1<sup>st</sup> person plural ending we become aware that the matter is not as conclusive as we first assumed. Although the ending *-mēs* is common in the oldest OHG texts, especially Bavarian and Alemannic, there is

less evidence of it in other dialects. Furthermore there are no examples of the ending *-mēs* in the Notker texts. There we find the regular 1<sup>st</sup> person plural ending to be *-ēn*, which is actually the old optative ending which has been generalized to include the indicative. Other forms with a long unaccented *ē*, e.g. nom. sg. masc. adj. in *-ēr*, 3<sup>rd</sup> class of weak verbs in *-ēn* and dat. pl. in *-ēm* do appear in Notker, where they are consistently denoted as long. These same endings are spelled with *ee* in the Benedictine Rule and suggest that these forms indeed had unaccented *-ē*. The corroboration of Notker in these cases then supports the general reliability of the length denotation in the Benedictine rule text. In the case of the 1<sup>st</sup> person plural ending we have to infer that *-mees* spellings in the Benedictine rule suggest the same sort of unaccented *-ē* which, if it were attested in Notker, would be denoted as long. Since there are no examples of the *mes*-ending in Notker, the evidence for this particular ending is circumstantial. The conclusion is that if we want to argue that the vowel of the 1<sup>st</sup> person plural ending is in fact long, we would need to have solid evidence from the Benedictine rule text.

The evidence for the length is therefore not very concrete. Looking merely at the all the 1<sup>st</sup> person plural forms found in the Benedictine rule text, we actually have more examples of *-mes* written with a single vowel than *-mees* with a double (long) vowel. This seems at first glance to be enough reason to question some of the assumptions already drawn, but it must be viewed in light of the philological facts of the text and compared with the general distribution of such variation of all grammatical categories which we expect to have a long *ē*, or for that matter any long vowel.

#### **4.4 Cod. Sang. 916 and its sources**

The circumstantial evidence for the length of the vowel in the 1<sup>st</sup> person plural ending makes the Benedictine rule text our only actual source for vowel quantity in this ending. This fact demands that we take a closer look at this particular text. It turns out

that the main source for the Benedictine rule text is one particular manuscript, known as Codex Sangallensis 916,<sup>50</sup> still preserved in the library of the monastery in St. Gall (St. Gallen) in Switzerland, where it was probably written in the 9<sup>th</sup> century. It is therefore crucial for any detailed discussion about the 1<sup>st</sup> person plural ending that we take into consideration this particular manuscript, its origin, history as well as philological situation.

#### *4.4.1 Origin of the text*

The Old High German translation of the Benedictine rule falls under the heading of glosses, which are quite numerous from the OHG area. The glosses are word by word translations of a Latin text, often added later to an existing manuscript. The Benedictine rule belongs to a particular type of these glosses, namely the so-called interlinear glosses, where the Old High German text was inserted between the lines of the original Latin text (see various types of glosses Bostock 1976:90 and onwards).

The Latin text of the Benedictine rule was originally composed by the founder of the rule, Benedict of Nursia in the early sixth century (Bostock 1976:103). Benedictine monks had become the dominant order in Germany during the eighth century and the text is a guide to how a monk should conduct his life. The German translation of the rule is from the early 9<sup>th</sup> century and is written in the Alemannic dialect of either St. Gall or Reichenau, which were two major monasteries and centers of learning in this area during the OHG period.<sup>51</sup>

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<sup>50</sup> This is the most common abbreviation for the manuscript citation. The manuscript is referred to in the literature by other abbreviations such as Codex Sang. 916, Cd. Sang. 916 or simply Sang. 916. Other abbreviations include St. Gall. 916 and St. Gallen 916.

<sup>51</sup> It is likely that the OHG Benedictine rule text was written in Reichenau in very early 9<sup>th</sup> century and Cod. Sang. 916 was a copy made in St. Gallen shortly thereafter (cf. Masser 1997:50). The distance between Reichenau and St. Gall is about 30 miles.

#### 4.4.2 *The manuscript*

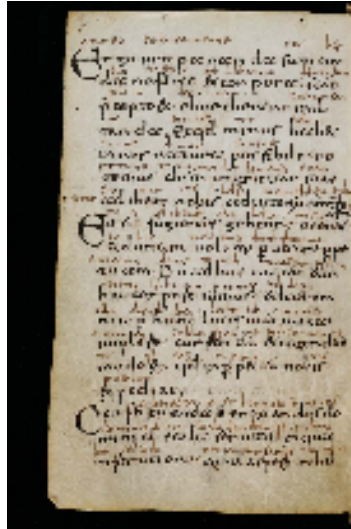
The manuscript Cod. Sang. 916 is in 8° format, about 19.5 x 12.5 cm (4.9 x 7.7 inch.) in size and consists of 172 pages (86 leaves) (Scherrer 1875). The parchment which was used when the manuscript was written was of rather poor quality, some pages have holes in them and others are exceedingly thin. The extensive use of the manuscript throughout time has also left its marks on it with numerous tears, spots and blemishes (Masser 1997:31). Despite this, most of the writing is very clear and legible, as there are only 16-19 lines (of Latin) per page with ample room between them to allow for the OHG glosses. There are also significant side margins on most pages as well as top and bottom margins, so wear and tear has not resulted in loss of text (except in a handful of cases). Figure 3 below shows a page from the manuscript.

The text of the Benedictine rule is on pages 2-158 of the 172-page manuscript. The first page is blank. On page 159-172 we find three shorter Latin texts, which have nothing to do with the other part of the manuscript. There is some indication that the manuscript once ended with page 158 and that the leaves with the following texts were added later (cf. Scherrer 1875 and Steinmeyer 1916:281-282, Masser 1997:29-36).

The manuscript is not glossed in OHG from the first page of Latin text. The Latin text starts on page two with a table of contents of the Benedictine rule that contains the 73 chapter headings. The cohesive Latin text commences on page six with a short section called *De moribus perfectionis*, which is not part of the main text of the rule and is not glossed. On page eight the actual text of the Benedictine rule commences with the words *Ergo preparanda sunt corda nostra* which is the last section of the prologue of the Latin version.<sup>52</sup> It is on this page the Old High German glosses start as well.

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<sup>52</sup> The Latin text of the prologue is not rendered in the traditional order in Cod. Sang. 916. The text starts with line 40-50 of the prologue of the Latin version on page eight and nine and then the initial part of the prologue (lines 1-39) follows on page 10-17.



**Figure 3:** The initial glossed page in the manuscript (Cod. Sang. 916, page 8, Stiftsbibliothek St. Gallen / Codices Electronici Sangallenses).

#### 4.4.3 *Some remarks about the glossing*

As previously stated, the text of the rule is divided into a prologue plus 73 chapters. The OHG glosses of each of these are of varying detail and there are significant differences between sections of the manuscript with regard to accuracy and consistency of glosses. The general trend has been described as the initial part of the manuscript having been thoroughly glossed but then becoming more fragmentary with increasingly larger gaps until only a few words here and there are translated. In chapter 67 the OHG text stops and the final chapters don't have any trace of the translation (cf. Bostock 1976:106).

This is the general tendency of the glosses, but the parts that are glossed are not all equally well glossed and in the later, generally sparsely glossed parts of the manuscript, we still may find short sections that are quite thoroughly glossed. A somewhat rough impressionistic description of the frequency of the OHG glosses in Cod. Sang. 916 follows: The prologue and the first nine chapters (until page 50) are very meticulously glossed with almost every Latin word having an OHG counterpart. The next four chapters (up to page 60) are almost as thorough, but then from chapter

14 until chapter 31 (pages 61-80) the OHG glosses are significantly fewer and more abbreviated (with the exception of page 68 which is almost as thorough as the previous part). Chapter 31 (pages 81-84) is very carefully glossed and so is the last section of chapter 41 until the middle of chapter 43 (pages 98-102). In between these the glossing is much scarcer. The following chapters up until chapter 50 (page 114) are all rather well glossed, although many words are skipped. From chapter 50 there is no gloss to be found, until the end of chapter 53 when the OHG glosses reappear in line 14 on page 117. The OHG glosses remain quite robust although not as frequent as in the first section until chapter 65 (page 146), when their number starts to go down significantly until they finally break off after the first few lines of chapter 67 (page 150).

#### *4.4.4 The editions*

Seven editions of the OHG Benedictine Rule have appeared. They are of various quality and range through an extensive time period, from early 17<sup>th</sup> century to the 21<sup>st</sup> century. The editorial principles are various and the purpose of the editions motivated by different factors.

The first one to edit and publish the OHG Benedictine rule text was Melchior Goldast in 1606. He published the OHG text along with an OHG-Latin glossary. The text of this edition is somewhat corrupt and varies from the later editions. It is generally believed that Goldast used Cod. Sang. 916 as his main source, although the orthographical discrepancies and slight variations found in the published text later aroused suspicion that he might actually have used another different manuscript of the OHG Benedictine rule, which is now lost and not otherwise known. If this were the case, this edition would be an important tool in historical linguistic studies of OHG such as the one undertaken here. The matter has been thoroughly investigated by Wessing (1992), who carefully compares the Goldast edition to the text of Cod. Sang.

916. His conclusion is that if the editor had had access to a second manuscript it must have been a copy of Cod. Sang. 916 and therefore not philologically important. Therefore, we will not use readings from the Goldast edition for comparison when discussing the grammatical forms relevant to the current research.

The first edition of the full text of the Benedictine rule in Cod. Sang. 916 was published in 1727 by Franck. This edition had both the Latin and the Old High German texts reproduced, but not diplomatically, with some comments on orthography of the manuscript and emendations given in footnotes (Wessing 1992:102). Another edition of the Rule was prepared by Hattemer and appeared in 1844. This text was edited as part of a larger work of Old High German texts from St. Gall. Here the Latin and OHG text were printed in two separate columns on each page. This is considered to be the first scientific edition of the rule. This edition was followed by one by Piper in 1898. This is the first diplomatic edition with the text of the manuscript reproduced as detailed as possible with word spacing, abbreviation and erroneous forms all rendered accurately (Wessing 1992:103).

The first critical edition of the text appeared in 1916 when Steinmeyer edited the text as part of his publication of Smaller Old High German texts. The line and page numbers of the original manuscript are directly indicated. The word spacing is not faithfully shown, but abbreviations are indicated. There is also a good description of the manuscript and an account of paleographical characteristics as well as an account of the evidence of many different scribes leaving their marks on various sections of the text. This will be discussed further in section 4.5.1. Steinmeyer's edition has been used as a standard edition of the text and together with the more faithful edition of Piper gives a good indication of the philological issues and textual problems we are faced with when working with this text.

A non-scientific edition of the Rule appeared in 1959 and was edited by Daab. The edition is based on the edited text of Steinmeyer (along with the parallel Latin text)

and serves the purpose of giving the non-specialists access to this important language source. It comes equipped with a glossary with normalized entries (cf. discussion in 4.8.2 below). The latest edition of the text is the one of Masser (1997), which is further supported by an extensive commentary (Masser 2002). This is a semi-diplomatic edition of the text where the printed page reflects the exact line structure of the corresponding page in the manuscript with the OHG glosses printed above their Latin counterparts. The edition tries to convey the orthographical details of the original, including word spacing and abbreviations although some normalization of ligatures and variant characters has been undertaken. This edition is further discussed in 4.5.6 and 4.8.2 below).

#### **4.5 Identifying the scribes of Cod. Sang. 916**

The Latin text of the manuscript is generally believed to be the work of a single scribe. However, the Old High German interlinear glosses seem to have a more complicated origin. Earlier scholars believed that there was only one scribe responsible for the OHG glosses in Cod. Sang. 916 (e.g. Hattemer (1844:23-24)). This scribe was possibly working from an earlier source that had two glossators. Seiler (1874:479) thought the differences found in Cod. Sang. 916 were the results of different translators who left their dialectal markings on the text, but he was not able to determine if more than one scribe had done the actual writing of the manuscript.

##### *4.5.1 Steinmeyer 1874 and 1916*

The first one to scrutinize the manuscript and identifying different scribes was Steinmeyer in 1874, and in the commentary of his critical edition of the Benedictine rule in 1916 he discusses his observations in some detail. There he is able to identify at least three different scribes “Mit voller Sicherheit kann ich nur drei deutlich voneinander verschiedene Hände feststellen.” (1916:284). These three hands are



responsible for the text up to page 105. The first hand is responsible for pages 8-47, 80-91 and 95-105, The second hand wrote pages 48-51 and the third one wrote pages 52-79 and 92-95. After page 105 the matter gets a little bit trickier. On the following pages, 106-159, Steinmeyer suggests that there might be three hands involved as well, but not necessarily the same as in the former part. “Hinter S. 105 ... bis zum Ende, soviel ich sehe, noch drei Schreiber tätig; doch vermag ich nicht auszumitteln, ob einer von ihnen schon an der Niederschrift einer der früheren Partien sich beiteilig hat” (1916:284). The conclusion seems to be that there are at least three and perhaps as many as six scribes involved in the copying of the text.

Even though there are as many as six scribes involved in the copying process of the manuscript, Steinmeyer believes that Cod. Sang. 916 is indeed a copy of an older source manuscript. He further argues that this source manuscript was written by two scribes or two glossators. He goes on to hypothesize that the composition of the OHG text was the work of one man due to consistency in the translation and vocabulary: “...wir das Werk eines einzigen Mannes vor uns haben...” (1916:285).

Steinmeyer’s criteria for assigning parts to the different scribes are mainly paleographical and orthographical, i.e. use of ligatures and abbreviations as well as characteristic writing of particular letters, e.g. the first scribe’s use of long shafts in *b d h k* and *l* as well as the closed *g* of the third scribe.

Steinmeyer’s conclusions imply that the text known to us from Cod. Sang. 916 has gone through a rather complex history of transmission. If we assume that the glosses were originally the work of one man, the text would then have been copied, first by two scribes or glossators of the source manuscript of Cod. Sang. 916 and then again by the many scribes who are responsible for the Cod. Sang. 916 manuscript that has been preserved to our day.

#### 4.5.2 Basecke 1947

Basecke (1947:372-385) was the next to address the contribution of various scribes to the manuscript. He observed that the manuscript was probably originally divided into quires or leaves of four that might not necessarily have been kept together and even worked on at the same time; so one scribe worked on one part at the same time as another worked on another part. He accepted Steinmeyer's earlier observation concerning the contribution of different hands and agreed with his conclusion of two translators of the predecessor of Cod. Sang. 916. He preferred, however, to refer to them as revisers (German: 'Bearbeiter'). For he thought there was still another layer of manuscript behind the source manuscript, since many graphic and linguistic characteristics cut across the division of hands, such as the use of forms of the prefix *ka-*, *ke-*, and *ki-*, as well as use of double vowels, and that these two revisers were responsible for expanding the original glossary from yet another still older manuscript. This assumption adds a layer of complexity to the whole question which has been addressed in later studies of the manuscript.

#### 4.5.3 Daab 1958

A very detailed discussion of the scribes and their individual contributions to the manuscript is to be found in Daab (1958). She accepted both the division of the hands as set forth by Steinmeyer as well as Basecke's ideas about different revisers. She analyzes in great detail the possible characteristics of each scribe and how that might reflect the contributions of various revisers. Her study led her to believe that most of the orthographical differences should be contributed to the revisers rather than the scribes of Cod. Sang. 916.

Her argumentation and evidence are rather complex and would require a significant detour to discuss in great detail here. The most relevant point for this discussion is that many of the orthographical characteristics are not linked to a particular scribe, but to

particular parts in the manuscript that cross over from one scribe to another. This is evident on Table 4.5-1 which is reproduced from Daab (1958) and shows the contribution of each scribe and the distribution of variant spelling of two orthographical phenomena. The phenomena in question are the form of the prefix *ka-* and the writing of the velar fricative *h*.

**Table 4.5-1**

Gegenüberstellung der Lauterscheinungen							
Schreiber	<i>ka</i>	<i>ke</i>	<i>ki</i>	<i>hch</i>	<i>h̥h</i>	<i>ch</i>	<i>h</i>
I 8 — 47	1 <i>ga</i>	199	49	3	137	10	13
II 48 — 51	2	19	5 (6) <sup>53</sup>	1	6 <sup>21</sup>	1	6
III 52 — 79	43	11	4	25	9	19	6
I 80 — 83	—	19	2	—	13	—	3
84 — 86	4	1	7	8	—	8	—
I 87 — 91	—	23	1	—	13	—	1
III 92 — 95	2	3	5	7	3	7	—
I 96 — 103	—	37	4	—	20	1	3
104 — 105	6	3	3	1 <sup>1</sup> hct 1 <sup>1</sup> ct	—	—	—
D 106 — 110	9	8	10	9	4	7	—
E 111 — 126	19	11	40	27	5	22	1
F <sub>1</sub> 127 — 135	8 } 9	17 } 21	26 } 33	7 } 8	6 } 6	21 } 23	2 } 2
136	—	2	2	—	—	—	—
137	1	2	5	—	—	—	—
F <sub>2</sub> 138 — 150	—	63	21	—	14	3	2

Daab (1958:400)

As we can see from the table above, she assumes that there were seven scribes at work in the copying of Cod. Sang. 916 and she is largely able to determine which parts of the manuscript they are responsible for.<sup>53</sup> However, there some complications, as parts of the manuscript which are likely to be written by a particular scribe show different orthographical characteristics from the rest of the contribution of that scribe, such as page 84-86. This illustrates that certain distinctions in orthography and vocabulary cut across the parts that can be assigned to a particular hand. Her conclusion is therefore that the main differences in orthography and vocabulary do not stem from the different scribes of Cod. Sang. 916 but rather should be attributed to the revisers of the source

<sup>53</sup> The scribes are found in the first left column along with the relevant pages in the manuscript they are responsible for. The seven scribes are referred to with numbers and letters: I, II, III, D, E, F<sub>1</sub> and F<sub>2</sub>.

manuscript. By comparing and contrasting these orthographical differences, she reaches the conclusion that the source manuscript was the work of eight such revisers.

#### 4.5.4 *Stanich 1972*

As part of her dissertation work Stanich (1972) examined the evidence for different scribes on Cod. Sang. 916. She builds on the conclusion of Steinmeyer who postulated that possibly six different scribes were involved in the writing or transcription of Cod. Sang. 916. According to her, Steinmeyer was largely right in his assigning different sections of the manuscript to different scribes, but she is able to modify slightly his conclusion and assign a section previously believed to be the work of Scribe 3 to be the contribution of yet another scribe. Her division is:

**Table 4.5-2**

<i>Scribe I:</i>	8-47; 79-91; 96-105; 138-150
<i>Scribe II:</i>	48-51
<i>Scribe III:</i>	52-60; 92-95
<i>Scribe IV:</i>	61-78
<i>Scribe V:</i>	106-110
<i>Scribe VI:</i>	111-126
<i>Scribe VII:</i>	127-137

(Stanich 1972:27)

She does not say anything about who is responsible for pages 138-150 nor does she go into discussion about the source manuscript or contributions by revisers. Her conclusion is that Cod. Sang. 916 was the work of seven scribes but her division is different from Daab (1958).

#### 4.5.5 *Whobrey 1990*

In his 1990 article Whobrey sets out to do the first comprehensive and systematic paleographical examination of the Cod. Sang. 916 manuscript. Like Basecke he thinks that the manuscript was originally divided into quires which were handled separately and likely glossed concurrently (Whobrey 1990:29). However he determines that

Basecke's quire divisions were wrong and proceeds to correct them. He is also able to scrutinize further the division of hands. His findings are more or less in line with those of Steinmeyer but differ in various important details. He is able to assign the improperly glossed parts of the manuscript to either Scribe 1 or Scribe 3 of the first part. His conclusion is that there are only three scribes who worked on the manuscript, with the contribution of Scribe 2 being rather limited. He is also able to find brief parts assigned to Scribe 1, leading him to believe that Scribe 1 started some of the quires and then handed them out to the other scribes for completion. In Table 4.5-3 we can see the how Whobrey assigns the parts of the manuscripts to scribes. His reevaluation of the orthography straightens out some of the inconsistencies pointed out by Daab (1958) and assigns all the problematic parts to specific scribes. This makes the picture somewhat simpler and limits the role of the earlier revisers of the source manuscript.

**Table 4.5-3**

Pages	Scribe	Quire
8-14	1	I
15-30	1	II
31-46	1	III
47	1	IV
48-51	2	IV
52-62	3	IV
63-78	3	V
79	1	VI
80-83	1	VI
84-86	3	VI
87-91	1	VI
92-94	3	VI
95	3	VII
96-103	1	VII
104-105	3	VII
106-110	3	VII
111-126	3	VIII
127-137	3	IX
138-142	1	IX
143-150	1	X
152-158	0	X

(cf. Whobrey 1990:24)

#### *4.5.6 Masser 1997*

The latest discussion of this matter is that of Masser 1997. He accepts the new examination of Whobrey and concludes that there were only three scribes involved in the composition of Cod. Sang. 916 (1997:35). He also reiterates and elaborates on an observation by Steinmeyer (1916:282) that it is clear that there was an older version of the Glosses as well as the Latin text, but these were not the same, i.e. the Latin text of the manuscript comes from one source and the Old High German text comes from another source (1997:38-50). There is neither evidence for nor need to assume a further layer of manuscript complications. His conclusion: Three scribes wrote down the OHG part of Cod. Sang. 916, and they were working from an original manuscript. From this survey of the literature on the nature and mode of transmission of this particular manuscript, we can see that there are various issues that need to be taken into consideration. Often we are faced with results that seem contradictory and convoluted. The good news is that as research into these matters has progressed, the picture seems to be becoming somewhat clearer and simpler. The rather complex view of Steinmeyer, which culminates in the ideas of Daab of multiple scribes or revisers responsible for one or more of the source manuscripts of Cod. Sang. 916, seems no longer tenable. Current research points to the conclusion that the original translation is only one step removed from our manuscript and involved only three scribes instead of seven. The source manuscript of Cod. Sang. 916 may have been influenced by more than one translator scribe or contributor and probably more than two or three.

#### *4.5.7 Conclusion*

Even though the textual history of the manuscript has become clearer with continued research, it is still quite complex. The fact that various different scribes are responsible for different sections of the manuscript and its predecessor makes grammatical interpretation and analysis of forms rather difficult. At least this history must be taken

into account when we look at indication of vowel length and the double writing of vowel signs, which is so crucial in the interpretation of the 1<sup>st</sup> person plural ending *-mēs*. Having each part of the manuscript assigned to one of three scribes makes it easier to look for consistency or variation in the orthography for each of them. However, the facts will only become clear when all of the evidence is considered and the use of the double writing is thoroughly accounted for.

#### **4.6 Double vowel writing**

This manuscript as well as other early OHG manuscripts are part of a European scribal tradition which is inherited from antiquity through medieval Latin. When writing started in the European vernaculars, including Old High German, it incorporated paleographical and orthographical practices that existed for Latin texts (cf. Bischoff 1986). The peculiarities and irregularities we encounter in spelling have to be viewed with this origin in mind.

Medieval orthography is difficult to analyze as there often are inconsistencies and irregularities that can be difficult to interpret (cf. Braune/Reiffenstein 2004:13-18). Many of these irregularities are a result of the Roman alphabet being adapted to suit a language which has different phonemic structure than Latin. These inconsistencies in writing can give some valuable insights into the phonological system of particular language or dialects, but are often ambiguous and open to interpretation.

Distinctive vowel length is a known feature of Latin phonology but is generally not indicated in Latin texts. It is usually clear from the context which variant of the vowel is intended. There were various methods of indicating vowel length in ancient times, such as doubling of vowels as well as use of diacritics (cf. Sihler 1995:21). The custom of writing long vowels by doubling the vowel letter did not survive as a continuous tradition but this graphical feature shows up in the earliest attested texts in various European vernaculars, such as Old English and Old Irish as well as OHG. It is

not clear whether this orthographic feature goes back to a common source or whether it occurs independently in many traditions. It is plausible that double vowel writing was employed during the process of adapting the Roman alphabet to best suit the phonology of the vernacular languages to illustrate phonemic contrast (such as *god* vs. *good* in OE (cf. Brunner 1965:15)) or a result of syncope (as in OIr. *tintuúh* ‘translation’ (cf. Thurneysen 1946:20-21)). Even though double vowel writing was not part of regular Latin orthography, doubling was as graphical feature used to indicate length where geminate (long) consonants occur. It therefore seems a natural extension to use this feature to indicate vowel length as well where and when it was deemed necessary.

Vowel length is contrastive in OHG as in Latin, but like Latin most OHG texts do not indicate vowel length. However there are exceptions. Some manuscript scribes indicate the difference between short and long vowels, either by writing the relevant vowel sign twice or adding an accent mark (either acute or grave) over the vowel sign to indicate length. The double writing is more prominent in older texts and use of accents in younger texts (Braune/Reiffenstein 2004:15-16).

We find double vowel writing in some of the older OHG manuscripts, although it is not a consistent part of the orthography. Double vowel as an indicator of vowel length occurs almost exclusively in root (accented) syllables (cf. Braune/Reiffenstein 2004:16). One text containing the Isidor translation (ca. 800) shows a clear distributional pattern where double vowel writing is limited to long vowel in a closed accented syllable and open syllables in monosyllabic words (Matzel 1970:172-174). In other texts it is difficult to establish why a scribe preferred to indicate the occurrence of a long vowel in some accented syllables and not others.

In Cod. Sang. 916 the double vowel writing is not limited to accented syllables but also shows up in unaccented syllables quite frequently. This makes the orthography of this manuscript different from other Old High German texts. The prominence of



double vowel writing in this particular text suggests that the scribes of this manuscript or of its predecessor considered length distinction to be an important part of the phonological system that needed to be overtly conveyed.

The distributional patterns or lack of distributional patterns we encounter in those OHG texts that do show double vowel writing suggests that this orthographic feature was in some respect optional. The indication of length was not needed to convey the meaning of words and sentences. Some scribes of OHG texts must have considered vowel length to be such an important part of the phonological system of their language that they felt the need to indicate it in their orthography. The different treatment of accented and unaccented syllables in most texts where double vowel writing occurs suggests that length indication in these two syllable types were motivated by different factors.

#### **4.7 About the vowel system of Cod. Sang. 916.**

The OHG phonological system traces its roots back to the PG system which in return is derived from PIE. As the language stages have evolved the phonological system has changed and developed. Some aspects of the phonological system of PIE are still present in the phonological system of OHG. It is a clear that vowel length was an important feature of the PIE phonological system where clear distinction was made between long and short vowels. These vowels are inherited into PG where some of them changed in quality or were affected by some other phonological change. However length remained as a distinctive feature in the vowel system of Germanic and survives more or less intact into the vowel system of OHG.

Vowel length is closely related to the question of stress and accent. One of the innovative features of Germanic was a restructuring of the accent system whereby the mobile accent system of PIE was replaced by fixed accent system where the primary stress of a word was associated with initial syllable. This created conditions whereby

the same syllables remained accented (most commonly root syllables) and other never received an accent (such as suffixes and endings). This led to a divergence in the vowel system as vowels in these two syllable types developed in a different fashion.

In Gothic contrastive vowel length is probably no longer an active feature of the phonological system (Braune/Heidermanns 2004:27). In North and most of West Germanic contrastive vowel length only remains in stressed syllables. Unaccented vowels are reduced and length distinction is abandoned. In OHG the unaccented vowels retain their quantitative differences. OHG is more archaic here than rest of Germanic in retaining this old feature.

The phonological system of OHG can be deduced from the orthography of the surviving texts as well as comparison with later stage of the language. The vowel system points to five way phonemic distinction in both accented and unaccented syllables (cf. Braune/Reiffenstein 2004:26-78). The accented syllables show a further phonetic variation which is not consistently denoted in attested texts (ibid). The system of unaccented vowels goes through some secondary changes and develop towards an *e*-vowel by the end of the OHG period (Braune/Reiffenstein 2004:60).

The vowel system of our manuscript is described by Valentin (1969) and Stanich (1972). The latter author is mostly concerned with accented vowels. She gives a descriptive account of single and double writing in both accented and unaccented syllables but does not seem to postulate a separate system for accented vs. unaccented syllables in her table of vowel phonemes (Stanich 1972:62).

The particulars lacking in Stanich (1972) are more than made up for by Valentin (1969). This author accounts for the vowel system of various OHG texts in great detail. His approach is to divide the vowel system into four distinct systems. Besides vowels in accented syllables he distinguishes between three types of unaccented vowels. The first type occurs in absolute final position, i.e. -V; the second type in final position, i.e. -VC and a third type in medial position, i.e. -VCV(C). He specifically

discusses the vowel system of the Benedictine rule and sets up a rather complicated system of unaccented vowels based on variation in spelling. An original five way distinction of both long and short vowels /i/, /ī/, /e/, /ē/, /a/, /ā/, /o/, /ō/ /u/, /ū/ is preserved in syllables in final position (Valentin 1969:169-174). Syllables in absolute final position show a reduced system of /i/, /e/, /a/, and /o/ for the short vowels and /ī/, /ō/ and /iu/ for the long vowels (Valentin 1969:117-123). For medial syllables he sets up a three way distinction for the short vowels /i/, /a/, /u/, but is less sure about the long vowels. His conclusion is that there probably was a five way distinction in long vowels but it is impossible to confirm as length is rarely noted in these syllables (Valentin 1969:239-242).

The observations of Valentin are useful, although perhaps his contrastive vowel system indicates a level of intricacy rarely found in languages. We have to keep in mind that his conclusions are based on the orthography of only this text and is therefore based on limited vocabulary. Furthermore he does not take into consideration the new philological insights by Whobrey (1990) concerning number of scribes and division into quires discussed above.

We will assume for the purpose of the study undertaken here that the vowel system of unaccented syllables was uniform five way distinction of short and long vowels between /i/, /ī/, /e/, /ē/, /a/, /ā/, /o/, /ō/ /u/, /ū/. The lack of length distinction in medial syllables as a feature of the orthography in the Benedictine rule is not easily interpreted. It is not clear whether this is an orthographical feature or an indication of phonological development. The use of accents in Notker shows that length is indicated for historically long vowels in medial syllables after a long accented vowel or following two syllables if followed by a short vowel. Otherwise the length of long vowels in medial syllables is not indicated. Braune/Reiffenstein (2004:65). At the same time it is clear that many medial syllables have a long vowel in Middle High German which they must have inherited from OHG. This especially true in certain

derivational suffixes, such as *-āri*, the stem vowel *-ō* of 2<sup>nd</sup> and stem vowel *-ē* of 3<sup>rd</sup> class of weak verbs, comparative in *-ōro* and others (ibid. 2004:65). The status of medial syllable is something we need to keep in mind when we start analyzing the data from the manuscript.

The use of double vowels and the question of long vowels in unaccented syllables has been discussed before in the literature. Besides Valentin (1969) it was pointed out very early on in the scholarly history of this manuscript that the double writing is concentrated in certain parts of the manuscript and is overwhelmingly found in some of the contribution of Scribe 1. This uneven distribution of the double writing was already mentioned by Seiler (1874) in his account of the orthography in the Benedictine rule text (1874:435).<sup>54</sup> He was able to identify sections of the manuscript where double vowel spelling was common versus sections where there were hardly written any double vowels. These sections correspond with the early contributions of Scribe 1. He also noticed that different vowels had different frequency and distribution patterns. He identified *ee* for *ē* for as the most common double spelling and also observed that *uu* for *ū* is was rarely found (1874:433-434).

Further discussion about the long vowels in particular is found in Mensel (1902). This is a useful account of all the categories where long unaccented vowels occur, with many examples cited from the text. Mensel based his analysis on the findings of Steinmeyer (1874) and Steinmeyer's identification of different scribes and division of the manuscript. Mensel's account is quite thorough. He finds that double vowel spelling is frequent in some categories (such as dat. plur. ending of adjectives *-ēm*), but does not occur in others (such as gen. pl. in *-ōno*). He points out various problematic forms and many are discussed in great detail with numerous examples

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<sup>54</sup> Seiler's analysis is based on the edition of Hattemer (1844), but not the manuscript itself. He was able to identify some variation in the orthography of the manuscript that led him to believe that it was copied by two scribes, which probably were working from an original that had been worked on by two glossators/scribes as well (Seiler 1874:476-477).

cited (e.g. *ō*-verbs (1902:36-40), other categories are discussed in more general terms with relatively few actual examples (e.g. nom.sg. masc. adjectives in *-ēr*) (1902:31). Mensel also discusses the different distribution of the long vowel spelling and even within different sections attributed to Scribe 1. He is not able to come up with any rule that accounts for the distributional pattern of double versus single writing of vowels but makes some noteworthy observations. He mentions the fact that double vowel spelling is more common in closed (final) syllables and less common in open final syllables, roots and derivational suffixes. He furthermore speculates that the reason for the less frequent use of double vowel spelling in the later sections of Scribe 1 might be that this scribe became less diligent as the copying work progressed. His conclusion is that the irregularity of the spelling does not indicate quantitative differences but simply inconsistent use of double vowel spelling to indicate long vowels (Mensel 1902:45).

These early observations of both Seiler (1874) and Mensel (1902) were made long before the philological facts were fully recognized and the points of division in the manuscript were clearly established. They have to be used with caution when dealing with the issue at hand as they are in part based on erroneous assumptions about the contribution of the scribes and the division of the text between them. In order to further scrutinize the observations of previous scholars and establish the facts regarding indication of long vowel in this manuscript, we need to have a complete overview of all the examples of all long vowels and see which ones receive double vowel spelling and which ones do not. The only way to do this is to go through the OHG text from start to finish and pick out all the relevant forms and collect them in a database and analyze them. All the relevant forms need to be looked at in the contexts of the text of the manuscript itself with the latest observations in mind regarding the division between quires and scribes.

## 4.8 The current analysis

The main peculiarity that stands out with regard to the double vowel spelling in Cod. Sang. 916. is the fact that the double vowel writing is not evenly distributed throughout the text. The fact that there is difference between scribes and sections of the manuscript with regard to use of double vowel writing raises a variety of questions we need to answer before we can come back to the question of the origin and history of the 1<sup>st</sup> person plural ending *-mēs*.

It is clear that the manuscript Cod. Sang. 916 plays a central role in the attestation and the interpretation of the 1<sup>st</sup> person plural ending *-mēs*. The textual history and the complications in the transmission of the manuscript demand a detailed analysis of the representation of long vowels and the use of double writing. We need to establish the distributional facts of this orthographical feature and all its details. It is therefore vital to perform a new analysis of the text taking into consideration denotation of vowel length in this manuscript and how it is manifested in categories and word forms where we expect a double vowel and contrast them with the division of the manuscript in quires and contributions of particular scribes.

### 4.8.1 *Questions and hypotheses*

There are several relevant questions that can already be answered based on the facts that have thus far been established. The first question we would like to know the answer to is whether the denotation of length with double vowel writing is limited to historical long vowels. If we have any examples of historically short vowels written with a double vowel it would entail that there was confusion between long and short vowels and that we cannot trust the double vowel writing as a firm indication of length. This would make the length indication in the manuscript insignificant and unreliable and therefore the interpretation of our 1<sup>st</sup> person plural ending as *-mēs* open to possible reinterpretation as *-mes*. All indications are that this is not the case. The use

of the double vowel indicating length is limited to historically long vowels. We can state this with the following hypothesis: (1) *All instances of double vowel writing in the manuscript indicate a historical long vowel and thus should be interpreted as indicative of vowel length.* There are some indications that this is an oversimplification as there are examples of double vowels which perhaps are not unequivocally instances of long vowel. We will return to this matter in section 5, but for the time being we will consider this hypothesis to be valid.

Another question is whether the double writing of vowels is systematic in some way and how the double writing is concentrated in certain parts of the manuscript and/or limited to the contribution of a particular scribe. As we have already mentioned the double writing is concentrated in the writings of Scribe 1 and can thus be said to be somewhat regular, i.e. regular in the sense that it occurs in the writings of Scribe 1 and not in the writings of Scribe 2 or 3 (The handful of exceptions where double vowel writing is found in the contribution of the other two scribes probably does not represent long vowels as we will discuss in later sections). This distributional fact would lead us to assume the following hypothesis: (2) *The double writing is only found in the contribution of Scribe 1 and therefore must originate from Scribe 1* However there are some inconsistencies that show that this hypothesis does not hold. While it is true that the overwhelming majority of the instances of double writing is found in the contribution of Scribe 1 it is not consistently found in all the contribution of Scribe 1. In other words, there are sections in the manuscript that are written by Scribe 1 that do not contain any sign of double writing. The question is: Why would this scribe sometime indicate double vowels and sometimes not? The most logical answer to that question is that the double writing is not something that we can attribute to an extremely detailed orthography of Scribe 1, but rather must be attributed to the source manuscript that this Scribe was working from. In this source manuscript there were sections where double writing was indicative of length but not consistently,

probably due to the fact that different scribes also worked on this source manuscript. When Scribe 1 copied text of an earlier scribe that indicated long vowels, he did so as well. When Scribe 1 copied text by an earlier scribe that did not indicate long vowels, he did not do so. Hypothesis (2) set forth above does not hold but gives rise to a new ones: (2a) *The double writing of Scribe 1 is inconsistent and only found in particular sections and therefore must originate in the orthography of the source manuscript* and (2b) *The lack of double writing of Scribe 2 and Scribe 3 is consistent and must be attributed to the lack of detail in their copying*. If this is the case we would like to establish some other point of division than the different scribes. The division of the manuscript in quires is useful for this purpose. It is likely that the quire division might have some indication on how the text was divided up and worked on by individual scribes. If the division between quires in the source manuscript were same or similar to the division of quires in Cod. Sang. 916 we might expect the some orthographical features, such as double vowel writing, to be found in some quires and not others, the implication being that different scribes worked on different quires. This gives rise to the following hypothesis: (3) *The division of sections of text that do show double vowel writing and those that do not, correlates with the division between quires*. If this hypothesis holds it would help to explain the inconsistencies in the denotation of vowel length that we encounter in the contribution of Scribe 1.

There are other questions that cannot be answered based on observation of previous scholars that we have so far discussed. These are more specific questions that have to do with the phonological facts of OHG and the context of the 1<sup>st</sup> person plural ending *-mēs* in that phonological system. In OHG the main word stress is consistently on the first syllable of a word with the exceptions of certain preverbs which were not stressed. Other syllables might have received secondary or lighter stress or be unaccented. We will refer to all syllables that do not receive the main stress as non-initial or unaccented. This is not saying that they did not receive any stress at all, but



rather that they were conditioned by different phonological factors than initial syllables. The 1<sup>st</sup> person plural ending *-mēs* is an example of a long vowel in such an unaccented syllable. Therefore we would like to see it pattern with other items that share this phonological classification, i.e. being an unaccented, or perhaps more accurately non-root long vowel. Before we can look at the 1<sup>st</sup> person plural ending *-mēs* in particular we need to make a basic distinction between non-root (unaccented) and root (accented) syllables and how they are realized in the manuscript.<sup>55</sup> We would like to know if there is a difference between the use of double vowel writing between different types of syllables. We expect there to be a difference between unaccented and accented syllables based on the fact that we do have attested texts where there vowel length is indicated in the spelling of root syllables but not in the spelling of non-root syllables. The motivational factors for long vowel spelling in these two types of syllables must be different (cf. 4.6). It is likely that the phonological difference of length was more relevant in accented syllables and perhaps these would then be more consistently denoted as long. Our working hypothesis is therefore: (4) *There is a difference between non-root and root syllables with regard to stress which is reflected in the double vowel writing in the manuscript.*

There are further questions we need to ask in order to establish the distributional facts relating specifically to the 1<sup>st</sup> person plural ending *-mēs*. Does the ending *-mēs* distinguish itself from other grammatical categories which we can safely assume contained a long vowel *ē*, such as third class weak verbs (*ē*-verbs), present optatives, dative plural ending *-ēm* and nom. sg. masc. adj. ending *-ēr*? A different distributional pattern might indicate that this ending was somehow different from the others in its phonological realization. That would open the way to alternative explanation of this

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<sup>55</sup> The term *non-root* is preferred here when discussing syllables that did not receive the primary word stress. Although appropriate when referring to endings and affixes is somewhat misleading when it refers to compounds, as each member of a compound usually possesses a root vowel syllable. It is nonetheless used here to include all instances where we can assume the vowel in question did not receive the primary stress, including second members of compounds.

problematic verb ending. Our hypothesis is therefore: (5) *The distributional pattern of 1<sup>st</sup> person plural ending -mēs is different from comparable categories with ē.*

To confirm the uniqueness of endings containing the long vowel *ē* we need to test whether the distributional patterns observed for such items are comparable with the distributional patterns of other long vowels. If there is some inconsistency or different distributional rules in the manuscript when it comes to vowels of different quality. If the hypothesis (5) holds we would like the uniqueness of the *mēs*-ending to be further confirmed by showing different distributional pattern from other items with a long vowel. We would expect the distribution of the others categories with double *ee* to be more or less the same as for categories with double *aa ii, oo, and uu*. If there is some discrepancy in the denotation of double vowels when it comes to vowel quality, we would need to account for those differences and hopefully explain them. Our working hypothesis is thus: (6) *The distribution pattern of the ending -mēs is different from the comparable categories with all other long vowels.* This hypothesis does not take into account specific distributional patterns, i.e. there might be different distributional patterns observed for vowels of different quality.

If it turns out that the distribution of the long vowel denotation for the verb ending is unique to this category such a result would give rise to the last hypothesis we would like to test: (7) *The distributional facts of the ending -mēs indicate that it the long vowel is secondary and the more original form of the ending is a short vowel form -mes.* If this turns out to be the result of the investigation we are left with different options to explore with regard to its origin and history.

#### 4.8.2 *Building the database*

In order to answer the question and test the hypotheses set forth in the previous section it is necessary to perform a careful analysis of the manuscript, taking into consideration all the factors that we have deemed to be relevant. The first step is to

identify all the grammatical forms which include a long vowel. To facilitate grammatical analysis of the manuscript, I constructed an electronic database comprising of all the relevant word forms. This database was necessary in order to conduct various types of statistical calculations. The information in the database included a thorough grammatical classification of each form as well as reference to where it was found in the text, what scribe was responsible for it and in what quire it is located. Besides my own analysis of the text I consolidated information from three additional sources which included editions of the Benedictine Rule as well as an electronic version of the text.

The most important resources in compiling this database were undoubtedly the more recent editions of the OHG Benedictine text, namely the edition of Daab from 1959 and the edition of Masser from 1997. Both these editions are accompanied by glossaries which reflect the different approaches these two editors have to the text. The Daab edition is more or less normalized whereas the Masser edition reflects a more meticulous philological approach. Taken together, these two glossaries complement each other nicely and provide most of the information needed to compile the database.

The edition of Daab from 1959 is a non-scholarly edition of the text, and seems to be tailored mostly at the needs of a student or someone who is interested in simply reading this OHG text. The text of this edition is more or less taken directly from the Steinmeyer (1916) edition which has been partially normalized. Furthermore it comes equipped with an extensive word index or glossary where all the forms are listed along with their Latin counterpart and German translation. The entry forms are given in a standardized Old High German, i.e. all forms have been normalized with regard to spelling, including indicating vowel length with the use of accents markings. Under each normalized dictionary entry form we have a list of all the forms that occur in the text and a reference to the page where they are found. These word forms are partially

normalized; the form is taken at face value from the Steinmeyer edition but accents are supplemented where they are needed. Double writing is indicated and not normalized (although there are exceptions to this). This wordlist is therefore a useful tool for finding all those words where we would expect a long vowel to occur, based mostly on the etymological analysis which forms the basis for standardized OHG. The Daab glossary lists only the word forms themselves but provides no grammatical analysis of each form.

The commentary of the Masser edition (Masser 2002) comes equipped with a very thorough glossary. The approach here is quite different from Daab. All the entry forms are found in non-normalized forms, i.e. the entry forms are taken at face value from the manuscript or reverse generated based on the manuscript spelling of inflected forms. All forms found in the manuscript are also listed in the same semi-diplomatic spelling Masser has adapted for his edition. Furthermore all the forms are grammatically analyzed and their location is given (page and line).

By combining these two resources we are able to look up almost all words with regard to assumed vowel length and get their grammatical analysis and check their exact spelling in the text of the manuscript.

Another source was the electronic version based on the Steinmeyer edition which is available on-line through the Indo-European text archive TITUS. This text was downloaded and converted into a simple text format. I used search options in Microsoft Word to locate all forms with double spelling, as well as to look for ambiguous forms and forms not cited in either of the glossaries and to look up forms that the two glossaries did not agree on.

Yet another useful resource was available online. This is the digital archive *Codices Electronici Sangallenses* of the Abbey library of St. Gall (Stiftsbibliothek St. Gallen) which includes high resolution images of the actual manuscript. This resource allowed

me to check problematic forms as well as to look at the orthographical details and peculiarities of individual scribes.

The method of analysis was thus that I went alphabetically through the glossary in Daab, looking for all etymologically long vowels (or vowels that are presumed to have been long in standardized Old High German) and grouped them according to vowel quality, i.e. *i*, *e*, *a*, *o* and *u*. At the same time I looked up the relevant words in the Masser glossary and adapted the spelling of the forms in Daab to the actual spelling convention of the manuscript and thus entered them into my database. Furthermore I added the grammatical information and citation. Whenever there were discrepancies or the grammatical information in the Masser edition was not satisfactory I looked up the relevant form in the semi-diplomatic edition of the manuscript.

Each of the two glossaries has a slightly different alphabetical order, i.e. with regard to initial *hl*, *hr* and diphthong *io* and *eo*. When alphabetically ordering the database I followed the method of Daab, which is more in line with the traditional alphabetical order found in most OHG dictionaries, (e.g. Schützeichel 1995).

There were quite a few cases where a more hands-on approach was needed. This was mainly due to the fact that some very common words are not listed satisfactorily in either glossary. In those cases the editors of both editions had decided only to list the entry form and not the inflected forms. Thus there was no grammatical information available for a large number of words. Probably the main reason for this methodology is that listing all the forms would take up a lot of space.<sup>56</sup> However it is necessary for the purposes of this study to have all the relevant forms thoroughly analyzed with regard to grammatical form. To analyze these common words and add them to the database I searched for them in the electronic version of the text. Then I compared the

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<sup>56</sup> In the Daab edition (1959) every citation word with more than perhaps a 10-15 examples has only the entry form listed and the actual attested occurrences are not given. The Masser edition lists almost every word form but still it does not account for the forms of many pronouns (mostly possessive ones *mein-* *sein-* etc.) and some of the more common verbs (e.g. *vesan* 'to be' and *tuan* 'to do').

forms I found there to the Masser's semi-diplomatic edition and modified their spelling based on the spelling found in the manuscript. Furthermore I analyzed these forms grammatically by looking at their syntactic context and the relevant glosses with the Latin text as well as an English translation. These were then added to the general list of words in the database.

The word forms that became part of the database were of two types. Words that have a double vowel spelling in the manuscript and words we assume had a long vowel (but do not have any spelling indication of that in the manuscript). These forms were then grouped with regard to vowel quality, i.e. *ī*, *ē*, *ā*, *ō* or *ū*. Furthermore each of these five groups were further divided into two basic subgroups according to a) whether the vowel in question appeared in the root syllable (most likely stressed) position or b) whether it appeared in another (most likely unstressed or less stressed) position in the word.<sup>57</sup> In some cases it was not immediately clear to which of these two groups a word belonged, but all words were eventually assigned to one or the other.

The information associated with each word was a little bit different between these two groups. Words classified under type a) were analyzed with regard to word class, and grammatical form. The words classified under b) were analyzed with regard to word class, grammatical form and type of suffix or ending. The grammatical information entered was: case, number, gender for nouns and adjectives and person, number, tense and mood for verbs. Preterite participles are both found in supine (uninflected) function or inflected like adjectives. Whatever the case was the maximum amount of information was abstracted. Sometimes the grammatical information was only partial as it was not clear by the context. In those cases some fields were left empty.

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<sup>57</sup> It is generally assumed that stress fell on the root syllables in OHG and this syllable is generally the first syllable of the word. Sometimes the rootsyllable can be prefixed and this prefix was not stressed. The place of secondary stress is less clear, but it is clear that the syllables that are not root syllables are susceptible to different developments than the root syllables (cf. Valentin 1969).

Many words had more than one long vowel and were therefore entered multiple times into the database, i.e. words like the verbal infinitive *âbrênôn* ‘to vanquish’ would have been first entered as a type a) *a*-word and then also as type b) *e*-word and type b) *o*-word. This single form would therefore be processed under three different headings in the database.

Most of the words in question could be entered into the database along with their grammatical and paleographical information without many difficulties. However some of the word forms I encountered were ambiguous, difficult to read or analyze or otherwise problematic. These cases need to be explained satisfactorily and often such cases have to be evaluated individually to see whether they could be included in the database or not. In some cases I needed to consult the images from the digital archive of the St. Gall library.

In the next section we will survey some peculiar or problematic forms and in many cases argue whether they should be included or excluded from the database.

#### *4.8.3 Commentary on individual word forms*

In what follows I will explain and comment on individual forms, which we assumed contained a long vowel, but can be considered peculiar or noteworthy in some manner. In the case of ambiguous or problematic forms I will argue my position for including them or excluding them from the database. The forms are listed according to page and line number in the manuscript. The forms are given in the semi-diplomatic spelling of Masser (1997, 2002) with an English translation. When needed the *standard* OHG spelling is given in parentheses preceded by the abbreviation “st.”. The general principal of OHG standard spelling is followed when citing a standard form and thus all long vowels are marked with a circumflex ^ accent.

8.04            *hebit*                            ‘has’

We find quite a few examples of the alternative 3<sup>rd</sup> person singular forms *hebit* instead of the expected *habet* or *habeet* of the *ē*-verb *habên*. All in all we have four examples of this form, besides here it is found in 45.01, 95.06, and 129.07. The expected form, i.e. *habet*, is found in 118.17. These forms obviously do not illustrate examples of *ē* in unaccented syllable. The quantity of the *i* in the ending is not clear, but it is never written double in this manuscript. One explanation of these forms could be that the *ē* became an *ī* early on which in return caused the root vowel to change quality from *a* to *e*. This process is well known in OHG, e.g. plural formation of *i*-stems *gast* vs. *gesti*. The first stage of this change, i.e. the development of *ē* to *ī* is harder to account for. It is more likely that these forms are analogical formations based on the first class of weak verbs (cf. Braune/Reiffenstein 2004:302) where the *i*-umlaut was regular for verbs with *a* in the stem. Therefore we will not include these forms in the analysis of the data.<sup>58</sup>

8.12            *muazzo*                            ‘have free time’

We would expect this to be 3<sup>rd</sup> person singular present form. Here the final *-t* missing for some reason. If that is the case this must be considered a scribal error. An alternative reading is to look at this as a 3<sup>rd</sup> sg. present optative form (cf. Schützeichel 1995), but this does not work well with the context (cf. Masser 2002:70).<sup>59</sup> Masser (2002) analyses the form as a defective present form following in the footsteps of Steinmeyer (1916). Here we will give the text the benefit of the doubt and instead of

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<sup>58</sup> The details of how this analogy worked is probably through the short variant of the 3<sup>rd</sup> sg. pret. form *habda*, like *branta* with 3<sup>rd</sup> sg. pres. *brennit* generates a new present form *habit* (cf. discussion in Kögel 1884:520).

<sup>59</sup> *dum adhuc vacat et in hoc corpore sumus et haec omnia per hanc lucis vitam vacat implere*. OHG *muazzo* is a gloss for *vacat*. Translation: “then --- while there is still time, while we are in this body and have time to accomplish all these things by the light of life...” (Fry 1981:165).



considering this a defective present form we will consider it an optative form in a slightly peculiar function. It is therefore analyzed as such and included in the database.

8.14            *euuin*                            ‘eternity’

This word is found in the prepositional phrase *in euuin* ‘forever’ glossing Latin *in perpetuum* (10.12) or *in aeternum* (here). This phrase has been grammaticalized in OHG and functions as an adverb. Despite of this, the form in question is formally an acc. sg. fem. and is thus analyzed when entered into the database. This form also appears in 10.12. and is treated in the same way.

9.01            *suarre*                            ‘burdensome’

This is most likely a scribal error for *suarres* (st. *suâres*) with the genitive -s missing. *Neo weht suarre* is translating *nihil graue* in the phrase: “In qua institutione nihil asperum nihil graue nos constituturos speramus”.<sup>60</sup> The immediately preceding *nihil asperum* is glossed as *neo vveht sarfes*, lit. ‘nothing of hardship’ and we would expect the same partitive genitive construction for *nihil graue* (cf. Masser 2002:70). The form is entered as a genitive into the database.

9.13            *siin*                                    ‘his own’

This appears to be an endless genitive of the reflexive pronoun in the phrase *siin selbes* for Latin *ipsius*. The grammatical classification has no implications for the length of the vowel and thus the status of the form in the database. The form is included there according to this analysis.

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<sup>60</sup>English translation: ‘In drawing up its regulation, we hope to set down nothing harsh, nothing burdensome.’ (Fry 1981:165).

10.11            *uonet*                            ‘remains’

Here and elsewhere in the manuscript the ampersand & is used as an abbreviation for Latin *et* ‘and’ as well as in a wider function to denote all syllables “et”, i.e. *uon&* for *uonet*. This is consistently done in both the Latin and German version of the rule. This orthographical feature is not indicated especially in the database or when the forms are cited from the manuscript.

11.16            *cuatū*                            ‘good’

Here we have the first example of nasal abbreviation, a superscript stroke or bar above the final vowel graph, which we find in various places throughout this manuscript. This particular form is ambiguous. The nasal abbreviation could be resolved as either *m* or *n*. Based on this the form it could either be *cuatum* or *cuatun*. The context seems to indicate dative plural as we have *cuatū sinē* for *bonis suis*. This is in line with the opinion of Masser, who classifies this form as a dative plural (Masser 2002:298). The weak form of the dative plural adjective would be *cuatōm* and the strong form would be *cuatēm*. This form is obviously neither. If the form in question is a dative plural adjective then it would have to be an irregular formation and maybe read *cuatūm*, i.e. with a long *ū*.

Another possibility is to take this at face value as the form *cuatūn* which theoretically could be a feminine oblique case in the singular or nominative and accusative in the plural in the weak adjectival conjugation. It is not evident how any of these options would fit in here. Perhaps we are then dealing with some sort of a substantivized adjective behaving like a regular *a*-stem noun. Then the expected form would be *cuatum* which is reconcilable with the evidence from the manuscript in the meaning something like ‘good gifts or good deeds’.<sup>61</sup> If this is the case this form would have to

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<sup>61</sup> The phrase “de bonis suis in nobis parendum est” is translated in Fry (1981:159) as: ‘with his good gifts which are in us.’

be excluded as an example of unaccented *ū*. All in all there are too many doubts about this form for it to be used in the calculations and so it is excluded from the database.

12.02            ***truhtjn***                            ‘lord’

The actual form in the manuscript is *tjn* and is as an abbreviation for *truhtjn* (st. *truhtîn*) ‘lord’. In such cases the missing part is amended and written in bold print. It is very common for some words only to be partially written, especially the word *truhtîn* and any compounds there of. The crucial thing here is that the unaccented syllable is written out and thus we would expect the double vowel length to be indicated if that had been the desire of the scribe. These words are thus included in the database but only used in calculations when the relevant syllable is not abbreviated.

12.03            *euuic*                                    ‘eternal’

Formally this is an adjective in the nominative/accusative neuter but it is being used adverbially to translate Latin *perpetuam* in “sed nec, ut metuendus dominus irritatus a malis nostris, ut nequissimos servos perpetuam tradat ad poenam qui eum sequi noluerint ad gloriam” (Fry 1981:158).<sup>62</sup> This adverbial use is suggested by Karg-Gasterstädt/Frings (1968) and pointed out by Masser (2002:75). Masser furthermore points out that in the German text the *euuic* seems to be in a grammatical relationship with *ze uizze*, for *ad poenam*, which is a prepositional phrase with the head noun in dat. sing. neut. If *euuic* was a regular adjective form we would expect it to conform to the gender, number and case with the head noun (ibid). This is not the case here. Furthermore the placement of the adjective before the preposition renders this an unlikely option. The adverbial use of neuter nouns is however a common practice in

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<sup>62</sup> English translation: ‘nor the dread lord, enraged by our sins, who punishes us forever as worthless servants for refusing to follow him to glory’ (Fry 1981:159).

many Germanic (and Indo-European) languages. The form is analyzed grammatically as a neuter adjective in the database but the usage is adverbial.

12.15 *horendo* 'hearing'

This is not a verb form but an adverb derived from the present participle stem of the verb *hōren* with the regular adverbial derivational suffix *-o*. This suffix is believed to trace its origin to PIE case endings (abl. *-ōd*, instr. *-ām*) (cf. Braune/Reiffenstein 2004:231). The root clearly had an *ō* and would be in close relation with the verbal forms. The form is entered as an adverb into the database.

13.18 *keladontes* 'invited'

This form was originally written as *keladantes*, but the a is corrected to *o* by the scribe, (cf. Masser 1997:84). The word is processed as such along with other *ō*-verb words in the database.

14.06 *frjdoo* 'peace'

From the context this form seems to be a genitive singular. The noun in question is the masculine *u*-stem noun *fridu*. The *u*-stems are not well preserved in West-Germanic and many forms have fallen together with other classes of nouns. The usual shape of genitive singular of *u*-stems in OHG is *-es*, which is analogical from the other strong masculine classes such as *a*-stems and *i*-stems. The quantity of the *o*-vowel as long is supported by the comparative evidence. This form is an archaic form which can be compared with the Gothic *u*-stem genitive *-aus*. There are a couple of other examples of *u*-stems genitives in *-ō* (written *-o*) in the OHG corpus (Braune/Reiffenstien 2004:205). The form has its origin in PIE *o*-grade form of the ending (*\*-ous*) which we would expect to develop to *-aus* in Gothic, *-ar* in Old Norse and *-ō* in OHG. These

are indeed the endings we find. The form is thus entered into the database as an example of a *-ō* in unaccented syllable.

17.10 *munistrylih* 'pertaining to the monastery'

This is an uninflected form of the adjective and is best taken as a singular neuter form being used adverbially. This is similar to the case of 12.03 *euuic* above and is analyzed as a neuter adjective and treated in the same way.

18.17    *zo*                      ‘so, in such a way’

The word in question is actually the rather common adverb *so* (st. *sô*). Here it is written with a *z* because of influence from the final *z* of the preceding *huuaz*. Despite this alternative spelling the form is a perfectly good entry into the database.

21.09     *vnhorsamen*                             ‘disobey’

Here we have an example of the dative plural ending with the final nasal being written as *n* instead of regular *m*. It is possible that this illustrates a tendency for nasal dissimilation, i.e. *-mem* > *-men*. In OHG the final nasal *m* undergoes a change into *n* in unaccented final position (Braune/Reiffenstein 2004:120) and perhaps this is an early indication of this change. There are a few other examples of dative plural endings in *n* in the text most of which have a preceding *m* in common. It is unlikely that this would affect the quantity of the vowel and thus this example is entered into the database along with other long vowel dative plural endings.

21.17 *ejnfaltlihero* 'simple'

This form is most probably a defective form of a comparative adjective in the dative plural. The Latin phrase here is *simplicioribus factis* ‘simpler deeds’. The OHG gloss is *ejnfaltlihhero tatim*. It is likely that the source manuscript had *einfaltlihherō* where

23.03 *ejgin* 'own, have'

23.10    *pirū*                      ‘we are’

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30.07 *vvelun*

‘pleasure’

The case form here is not straightforward. The word is a gloss for an accusative plural in Latin and formally that would be the likeliest form in OHG, i.e. *welûn* from a weak noun *wela*. This would be a rather literal translation. However syntactically in the OHG context a dative plural would be more fitting (cf. Masser 2002:107). It is possible that the form is an innovative dative plural here, i.e. *welûn* for expected *welôm*. If we consider the word in question to be strong feminine *wela* we might expect a by-form *welun* in the dative plural but this is more characteristic of later texts (Braune/Reiffenstein 2004:196). We will therefore take the form at face value here and enter it into the database as an accusative plural.

30.11 *tatj*

‘deed’

The form *tatj* formally looks like a dative singular and could perhaps be interpreted as such. However it is used to translate Latin dative plural *actibus*. There is no reason why the singular should be used to translate the plural as we find the expected dative plural *tatim* in many different places throughout the manuscript. The more likely explanation is then that *tatj* is a scribal error for *tatjm* (cf. Masser 2002:107). In 16.12 and 39.17 *tatjm* is written vs. *tatim* elsewhere. This might be another example of an omitted nasal abbreviation when copying from the source manuscript. The form is entered as a dat. plur. fem into the database.

30.13 *abulkii*

‘anger’

This form occurs in the phrase *dera abulkii*. However the phrase is written as one word *derabulkii*. This is interesting considering that the form *aabulkii* occurs elsewhere in the same line and shows that the *a* was long. There is no obvious explanation for this way of writing except some sort of scribal error where the scribe left out either the final *a* of *dera* or the initial *a* of *aabulkii*. It is doubtful then whether

31.01 *vvidar muatj* ‘injustice’

31.08 *tragan* 'slow'

32.13 *diem selbon* ‘themselves’

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occurs, cf. *dem selbon* in 84.3, 125.3 and 143.15. This might indicate that the dative plural ending of this particular pronoun has been affected by some secondary processes, possibly dissimilation of the preceding nasal in *dem*. These forms are therefore not used in the analysis.

### 33.03 *er* ‘ere’

This *er* is part of a compound conjunction *er denne* translating Latin *antequam*. The words are written separately but the syntactic content should be noted. It is possible that the compound characteristics might influence the quantity of the vowel. At any rate it is likely that the word was not particularly stressed. We will nonetheless analyze the vowel as a long root vowel when we enter it into the database.

### 33.17 *loot* ‘reward’

This form *loot* is a nom. sg. neut noun and is corrected to *loon* in editions (e.g. Steinmeyer 1916 and Masser 1997). The writing of *t* for an *n* is considered to be a scribal error. Such confusion between *t* and *n* seems rather odd and possible sources for this are not obvious. We can exclude contamination from following word as this word is the last one in the line and the first word in the next line is *vns*. Similarly there are no homophonous syllables (*ot*) in the vicinity of the word. Strangely enough we have another example of precisely this same phenomenon affecting a related word in 123.14 *itlot* for *itlon*. Instead of considering this a scribal error we might consider that besides the regular noun *loon* there was closely related noun *loot* with more or less the same meaning, of rather unclear morphological origin. There exists in ON a word *\*lauðr* ‘gold’ (Magnússon 1989:547), which we could postulate was related to an OHG word *lōt*.<sup>63</sup> The meanings ‘gold’ vs. ‘reward’ seems semantically compatible.

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<sup>63</sup> This word does not exist as an independent word in ON, but as a first member of nominal compounds, *lauðar-* in certain kennings (Magnússon 1989:547).



there. The problem here is how to categorize the long  $\bar{a}$  here in *taan*. This is in principle a root syllable and if it were isolated it would be easily identifiable as such. However in this form the preceding prefixes must have had influence on the accent. By comparison we might consider the example of *duruhtaniv* in 35.11, where *taniv* was considered to be the root and the prefix unaccented. In this case the form is clearly an active participle form derived from the verb. However it is clear that *vnduruhtaana* is not an example of regular unaccented  $\bar{a}$  like the one that occurs in endings. Even if it is no longer considered to be part of the verb formation it would have had continuous support from the participles in *taan* and be identified with them at some level. I therefore consider this an example of a root syllable rather than a unaccented one.

36.10 *stozzonto* 'anxiously'

This is not a verb form but an adverb derived from the present participle stem with the regular adverbial derivational suffix *-o* similar to *horendo* in 12.15 above. The adverb is derived from an *ō*-verb, *stozzōn* ‘shake’ and we assume this verb stem forms the base of the derivation. Thus the form is entered into the database as an example of a potential long vowel *ō*.

37.01 *murmolo* 'murmur'

Masser (1997:132) states that the last two (sic!) letters along with part of the || are not visible on the page because of damage to the corner of this particular leaf. He emends the form to *murmol[ot]*. Steinmeyer (1916) has *murmoloot* without any indication of neither restoration nor an explanation. The relevant manuscript page (Cod. Sang. 916, page 37, Stiftsbibliothek St. Gallen / Codices Electronici Sangallenses) does not show any damage and the form can clearly be read as *murmoloot*. When looking at the manuscript page we can see a fold on the corner cutting through the middle of the

letter *l*. To explain Masser's reading the corner must then have been folded over when he transcribed the manuscript without him realizing it. This example is included in the database.

37.06    *murmolonteru*                      'murmuring'

The analysis of this form as gen. pl. masc. indicates that this is a scribal error for *murmolontero*. This is the opinion of Steinmeyer (1916:208) and Masser (2002:117). The form in principle could be a gen. sg. fem. but that does not make any sense in the current context.<sup>65</sup> The analysis of *murmolonteru* as a scribal error for *murmolontero* is further supported by the fact that occurring right below *murmolonteru* in the following line we have *kenuhtsameru* which indeed is a gen. sg. fem. and could have influenced the scribe while copying. The form is entered into the database as a gen. pl. masc.

39.13    *obonoontikii*                      'top'

This word is somewhat problematic. It is not obvious why the quality and the quantity of the second vowel would be written this way. The standard form of this word is *obanentīgī*, derived from the adjective *obanentīg* 'highest' (cf. Schützeichel 1995:228). The word is a compound where the individual parts can be recognized as adv. *oban* 'upper' and the word *enti* 'end' along with the derivational suffix *-īg*. It seems that some sort of vowel assimilation has occurred where the *e* vowel in the third syllable has changed its quality under the influence of the initial vowel (e.g. Seiler 1874:479). Such long distance assimilation is rather unlikely and it does not account for the quantity difference. Mensel (1902:43) wants to link this word with preposition *ennōnt* 'other side', which would explain the quantity and quality of the vowel. He does not go into details how this word comes into play here, whether it is an actual

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<sup>65</sup> Latin "Immo poenam murmorantium incurrit", glossed as: *noh meer vizzi murmolonteru anahlauffit*. English translation of Latin: 'He will incur punishment for grumbling' (Fry 1981:165).

member of this compound word, analogical influence or simply a scribal error. The word is entered into the database as the only example of *ōnt*-suffix.

40.08     *unseer*                      ‘our’

In OHG the genitive of the personal pronoun is frequently used as a possessive. This is at least so in the feminine singular and all the plural forms. In the masculine and neuter singular there are special possessive forms. These are formed from the basis of the genitive singular possessive as well as with the addition of the strong adjectival endings (See Braune/Reiffenstein 2004:245-246). The neuter singular nominative form of the adjective can have two forms, namely just the bare stem, e.g. *blint* or this stem with the addition of a nominative ending *-az*, i.e. *blintaz*. If the same principle is applied here we would expect either the form *unseer* or *unseeraz*. However the form *unseer* is ambiguous. It could either be this uninflected possessive or simply still the genitive of the personal pronoun. Since the latter forms the basis of the former I analyze this form here as a genitive singular of the personal pronoun.

41.03    *sosama*                      ‘in the same way’

This form is problematic as it has been erased from the manuscript along with its Latin counterpart. Even though the OHG has been scraped away the letters are still (partially) legible. It is likely that the form erased was *sosama* but the present or absence of a second vowel letter cannot be confirmed nor excluded with total certainty. Therefore this example of *sosama* is not used when comparing forms in the current study.

41.03     *anakanc*                      ‘went to’

The form is corrupt. This is a 3<sup>rd</sup> pl. pres. ind. form of *anakân* (contracted form of *gangan* ‘go’, cf. Braune/Reiffenstein 2004:311-312) and should be *anakant*. The

source of this corruption might be the affrication of the final *t* when followed by an front vowel in the following word (which is the preposition *in* here). In this manuscript the regular spelling for *zît* ‘time’ is *cit*. This idea is somewhat undermined by the fact that between *anakanc* and *in* there once were found the words *sie so sama* which have been erased from the manuscript (see above). Perhaps the choice of the affricate symbol *c* could also be induced by the contact with the following sibilant. Either way the form is useful for the sake of this study.

41.03    *ljbe*                      ‘life’

This is most likely a scribal error where we have a dative form *libe* in the place of the expected accusative *lib*, (thus Steinmeyer 1916:211, Masser 2002:124). The accusative analysis is made clear by the following adjective *euuigan* which is unambiguously accusative. However it is not unthinkable that there might have existed a *ja*-stem by-form, which would have such an accusative form (PG *\*lība-* and *\*lībija-* cf. ON *lif* and *lifī*). This analysis has however no bearing on the current investigation as we are only concerned with the root vowel which clearly would be long in all cases.

41.04 *forahtanter* 'afraid'

This form appears to be a nom. sg. masc. The Latin counterpart is dative plural *timentibus*. The OHG word has to be erroneous, most likely a scribal error for an intended dative plural form *forahtantem* (Masser 2002:124). The final stroke of the final *m* has been omitted. Perhaps the scribe got confused by the immediately preceding word, the relative pronoun *der*. The word is entered into the database as a dative plural and taken as an example of the ending *-ēm*.



43.11    *pīi*                      ‘by’

This word is found in various functions; as a prefix, preposition or an adverb. The length of the vowel is a somewhat complicated matter. The word existed in unaccented (short vowel) and accented (long vowel) variant from an early time, depending on the function. Here it is functioning as an adverb and is accented. The vowel is clearly long as is indicated in the writing. This is the only example of *pi/pie* written with a double vowel in the text. The single vowel occurrences are in 31.05, 33.10, 77.03, 78.07, 82.02, 86.08, 101.15, 102.18, 104.03, 105.09, 106.06, 129.05, 133.06, 134.08, and 137.05. In the relevant parts of the text the word is either a prefix or a preposition and likely that the vowel was short. It seems that interpreting these as examples of long vowel written with a single *i* would render skewed results. Therefore this word is left out of the calculations.

44.05 *uuizzago* 'prophet'

The noun *wīzzago* is abbreviated in the manuscript as simply *go*. As this is a rather common word (in this context) it was not prone to misinterpretation. The Latin counter-part (*propheta*) must also have been very familiar to most readers. The evidence for the vowel quantity of the root syllable is therefore impossible to evaluate and will not be taken into consideration in the analysis of the data.

44.14    *kirida sina*                      ‘his urges’

The phrase *kirida sina* is used to gloss Latin *desiderja sua*, which is formally a neuter plural. The OHG gloss looks like a feminine accusative singular. The form *sina* can only be interpreted this way. It is possible that the translator thought of the OHG feminine noun as some sort of a collective (Masser 2002:127), but not very likely. The form *kirida* can also be interpreted as an accusative plural. If that were the case here the form *sina* becomes problematic. It would be an innovation for the expected *sino*.

Masser (ibid) explains the form as analogical influence from the noun that changed the ending of the pronoun from *-o* to *-a* (*sino* to *sina*). The accusative plural reading is preferred here so *sina* is taken as a defective plural form.

45.17 *Inthabee* ‘wait’

This form is best analyzed as a 2<sup>nd</sup> person sg. imperative form and appears shows long final vowel. This is the only indication of long vowel in this category in this text. The final vowel in such imperative forms from *ē*-verbs is believed to have been short already in the earliest texts (cf. Braune/Raffenstein 2004:206). If the vowel is long in this form we assume that the vowel was also long in other such forms so we treat the three other 2<sup>nd</sup> person sg. imperative forms from *ē*-verbs the same way and include them in the database. Alternatively the form can be analyzed as 3<sup>rd</sup> sg. opt. form (cf. Mensel 1902:40) but that is less convincing.

46.18 *keben*; 47.01 *kebeen* ‘give’

These two examples are some of the most noteworthy ones in this manuscript. At the bottom of page 46 the Latin word *prebent* seems to have been erased. The reason for this erasure is that the Latin word is repeated as the first word on the following page. There is an OHG gloss *keben* at the bottom of page 46, seemingly to gloss the now erased Latin form, (although it is found under the erased form and not above it as would be expected). The Latin word is again glossed on the top of page 47 but this time as *kebeen*. Both these pages are written by Scribe 1 but belong to different quires. Such repeated words or catchwords (Reklamanten) are known method of marking the sequence of quires (Bischoff 1986:37) These examples are a strong indicator that the use of double vowel originates in the language of the source manuscript or manuscripts. This indicates that there was a difference in the use of double vowels between quires. Other factors that might be involved in determining the use of double

vowel writing, such as syntactical position, accent or word class do not seem to be as relevant. Even though there are examples of double writing of *ee* in Quire III this happens to be the only example of a 3<sup>rd</sup> pl. present optative in that quire. Therefore we can't determine what vowel symbol was the norm.

These forms pose a problem for the database, whether to enter them as one or two forms. The decision was made to enter them both and use them both in the calculations.

49.04    *kamejnsanum*                      'common'

The intended form here is *kamejnsamun* which is a dat. sg. fem. weak adjective form. The nasals have switched place here in an apparent miscopying or spoonerism. The form is entered into the database and used in the analysis as an example of the ending *-ūn*.

49.09    *anfrahidu*                      'questioning'

In the manuscript the word is actually written *zan fra hi du*. The initial *z* should be interpreted as *ze*, i.e. *ze anfrahidu* for Latin *ad interrogationem* (cf. Masser 2002:136). This would then be an early example of liaison. This word *antfrâhida* is only found in this text twice and is not known elsewhere in OHG (loc. cit). The root vowel of the noun is long and thus the form is suited for analysis and is used in the database.

51.11    *anoo*                      'without'

This preposition has varying forms in the text. The most common one is *ano* (e.g. 14.18, 18.02 and elsewhere 19 times), but we also have the spellings *aano* (40.04) and *ana* (36.03, 82.02, 83.01, 137.02). The standard form of this word is *âno*. It is not clear why there would be a long *ō* here. Either this indicates a secondary development or a reverse spelling. Perhaps the final *o* was lengthened emphatically, but there would be

no other examples of this. Instead of calling this a scribal error we might consider that some sort of quantity shift occurred between the *ā* and the *o*. This remains inconclusive. The form is discussed in 6.4.9 below. The result is that this form is entered into the database twice in line with the apparently two long vowels. The other examples of *ano* are only entered once.

51.12    *ssamaso*                      ‘same as’

This is a compound of *sama* and *so*. It is not clear why the initial *s* is double written. It cannot be traced to any obvious source and must be some sort of a scribal error. This is entered into the database as an example of non-initial long  $\bar{o}$ .

51.16 *hachustim* 'insufficiency'

This dative plural form has a rather odd spelling. The initial *h* does not have any etymological basis. The phrase is *fona hachustim*, so perhaps this *h* served as a sort of hiatus filler. There are other examples of *achust* (st. *âchust*) in the text (even after preceding *a* but nowhere else with this spelling). The unexpected spelling does not influence the status of the form in the database.

54.08 *rehtculichontem* 'orthodox, adheres to the right faith'

This word is functioning as an adjective but looks like a present participle of an  $\bar{o}$ -verb. The verb however is not preserved. The form is entered into the database as a dative plural. The word had to be entered four times into the database to account for all four instances of long vowels (st. *rêhtculíchôntêm*).

54.09 *kitaniu* 'made'

This form is corrupt. The form is a preterite participle of *tuan* and we would expect it to be nom. pl. fem, modifying *kirechida* which is clearly a nom. pl. fem. The expected

ending would be *-o* instead of *-iu* which looks like a neuter plural form. Masser (2002:145) suggest that the scribe might have been thinking about a more common use of neuter *facta*: “die Endung *-iu* (statt *-o*) ist wohl Versehen des Schreibers (in Gedanken an häufiges neutrales *quae... facta sunt etc.?*).” Another possible reason for this sudden switch to neuter might be related to the fact that there is some distance between the noun and the modifying participle. We will need to look at the context:

Latin:

“Codices autem legantur in uigiliis tam ueteris testamenti quam noui diuine auctoritatis, sed et expositiones eorum quae a nominatis doctorum orthodoxis catholicis patribus factae sunt.”

OHG:

*puah keuisso sint kalesan in **uuah**tom so dera altun euua sosama dera  
niuun cotchundun ort frumu .... sosama kirechida iro, deo **fona** kinamtem  
lerarum rehtculichontem ...**fatarun** kitaniu sint.*

Translation:

‘Besides the inspired books of the Old and New Testaments, the works read at Vigils should include explanations of Scripture by reputable and orthodox catholic fathers’ (Fry 1981:205).

As we can see *kitaniu/facte* ‘made’ is separated from *kirechida/expositiones* ‘explanations’ by quite a few intervening words. Even though the syntax here is not terribly complicated the distance could have been enough to throw off the glossator for a second making him resort to the neuter, or misread *facte* as *facta*. The morphological incongruence is not an important factor in the context of the long vowel and the form is entered into the database as an example of *ā* in a root syllable, and tagged as nom. pl. neut.

54.11 *andree* 'others'

This form is noteworthy because it is one of a handful of examples where we find double vowel writing in the contribution of Scribe 3. There is another example of the

same form in 56.10, but otherwise this nom. pl. masc. form of this numeral or adjective is written with a single final *-e*, including the only example by Scribe 1 in 23.02. The vowel of the ending is already short in oldest OHG (Braune/Reiffenstein 2004:221). The double vowel writing here is therefore probably not indicating length and might even be a scribal error. As these forms clearly are not part of the regular double vowel writing of long vowels they are not used in our analysis.

56.01    *sezamez*                      ‘we sit’

The ending of this 1<sup>st</sup> person plural form is corrupt. Instead of the expected *sezames* we have *sezamez*. In OHG literature we occasionally find *z* written where we expect to find *s* (see Braune/Reiffenstein 2004:168). Here it could simply be explained as some sort of dittography on the part of the scribe, repeating *ez* after having just written *ez*. It is hardly reflecting any phonetic difference from the norm. The form is grouped together with other forms in *-mes* in the database.

56.08 *erstantem* 'step up, elevate'

Here we have *erstantem* for the expected 3<sup>rd</sup> pl. pres. form *erstanten*. This cannot be explained by the phonetic environment as the following word begins with the vowel *a*. Early on in OHG we find the tendency for final *-m* to become *-n*, when it is functioning as an ending (see Braune/Reiffenstein 2004:120). There are a few examples of that in this text, e.g. in 21.09 also discussed above, but it is not widespread. If this process had started it might be possible to think of this example here as some form of hypercorrection, i.e. the scribe is trying to write final *m* and final *n* correctly according to tradition and origin but is not able to determine the distribution based on his own intuition. Since this is the only example of this in the text it is likely that this is not the case but rather the evidence be interpreted as a scribal error without any apparent explanation. We find the same form, *erstanten*

58.06     *andre*                             ‘other’

58.18     *antephonun*                             ‘antiphone’

59.03 *f(únf)zugoſto* ‘fiftieth’

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processes these forms have undergone and clearly the ending is corrupted if it is an *a*-stem ending. Therefore these forms cannot be used in the active database.

60.18     *ostrom*                             ‘easter’

The intended word is *ôstrôm* a fem. noun *ôstara* in the dative plural. Here the initial syllable is not written and therefore we cannot use that part of the form in our calculations. The ending is written out so the word can be entered into the database as an example of unaccented *ō*.

64.08     *uuihi*                             ‘blessing’

At this stage in the manuscript the glosses are quite scarce and lack some detail. The Latin text here reads: “Post quos ymnum eiusdem ore lectione una uerso kirjeleison bene dictione et misse fiant” <sup>67</sup> ‘After the psalmody comes the hymn for this hour, followed by a reading, a versicle, “Lord, have mercy,” a blessing and the dismissal.’ (Fry 1981:213). The ablative *lectione una* is glossed as nominative *lecza einiuv*. We would expect the ablative *bene dictione* to be glossed as nominative singular the same way (Masser 2002:163). Masser nonetheless determines that *uuihi* cannot be a nominative singular. The syntactic context in the OHG glossary is not clear since the glosses are fragmentary: *after diem ... dera selbun citi lecza einiu .... uuihi....* It seems to me unproblematic to analyze the form as an *īn*-stem which in OHG have a final *-ī* throughout the singular. In his glossary (2002:365) Masser lists the word under *uuihii* and clearly analyses it as an *īn*-stem form although the case form is “unklar”. There is therefore little reason why this form cannot be analyzed as a nominative as well. This is the view taken here and the form is thus entered and analyzed in the database.

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<sup>67</sup> Standardized version of this passage: *Post quos (psalmos) hymnum eisudem horae, lectionem unam, uersu, quirie eleison, et benedictione missae fiant* (Fry 1981:212). Noticeable difference between accusative here and what appears to be an ablative in the text of the manuscript.

75.13 *ejnigamu* ‘any’

The form *ejniga* is hard to account for in the context of the manuscript. Latin: *ne a quoquam*, OHG: *min fona ejniga*, i.e. ‘not from any (brother)’ where we would expect a dative following a preposition. There seems to be a consensus to amend it to masc. sing. dative, *ejnigamu*, so do: Steinmeyer 1916:233, Daab 1959:51 and Masser 2002:175. If we consider that the preposition *fona* sometimes takes accusative, (see 119.12), we could consider the intended form here to be *ejnigan*, i.e. the same we have written in the manuscript with the addition of a suspended nasal abbreviation (superscript bar or stroke), which has been omitted in transcription. However it does not affect this investigation as we are concerned with the adjectival suffix *-īg*.

81.11 *farmanento* ‘dismissing’

There is some disagreement regarding the classification of this form. It looks like a present participle of *farmanên* in the nom. sg. masc. According to Masser (2002:179) we would rather expect the form of the participle in this context to be undeclined, i.e. *farmanenti*. He suggests two explanations why *farmanento* is preferred: either the scribe was influenced by the Latin source word, *spernendo*, or that this is an adverbial derivation with the familiar *o*-formant. He prefers the latter option. The conclusion here is that the form should be taken at face value, i.e. a nom. sg. masc. present participle used in a slightly unusual way. It is thus entered into the database.

84.10 *achust* ‘insufficiency’

The syntactic context indicates a nominative but the form has an article associated with it, *dea* which is clearly an acc. sg. fem. Rather than interpreting *achust* as an accusative form (which it formally could be) it is more likely that the form of the article is problematic. Masser (2002:183) analyses *achust* as nominative and adds:

“Der Artikel *dea* (Akk. Sg.) ist Fehler des Glossators”. This is also the position taken here and *achust* is analyzed as a nominative form.

85.11 *rehtlichum* 'just'

This form has been erased from the manuscript along with the corresponding Latin *legitima disciplina*. The phrase is however still legible and the top part of the final *-m* is visible (see Masser 1997:228 and Cod. Sang. 916, page 85, Stiftsbibliothek St. Gallen / Codices Electronici Sangallenses). We would expect this weak adjective form to be *rehtlichun*. Here we have an example again of the writing of *m* for etymological *n*, see the discussion about *erstantem* in 56.08. The form is entered into the database as an example of the *ûn*-ending and of the *lih*-suffix.

87.06 *piderboom* 'usefulness'

This dative plural formation is not in line with the origin of the noun. The noun we want to link this form to is the *piderbi*, a feminine *i*-stem. The regular dative plural formation of such a noun would be *piderbim*. The form *piderboom* suggests a base noun *piderba* but there is no attestation of such a noun. A possible explanation is that this is a scribal error caused by the preceding adjective form *meroom* (see Masser 2002:186). Even though this is not a “correct” formation it is still an example of double writing of the dative plural ending *-ōm* and will be treated as such for the purposes of this study.

90.08 *Itniuuiv* 'envigoration, restoration'

This is an *m̄n*-stem *itniuwī*. The main characteristics of this class of noun is that all the case forms in the singular are the same. Therefore it is hard to explain the final *v* here. The word occurs here in a prepositional phrase *fora Itniuuuiv* translating Latin *pro reparatione*. The form is commonly assumed to be a misspelling for *itniuuui*, which

90.12 *deonostun* ‘servants?’

91.06 *rehljhhiu* 'regular'

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Another thing is that this word occurs as a part of phrase *citj rehljhhiiu* for “horas canonicas” ‘regular hours’. The adjective is clearly an acc. pl. neut. form, but it seems to be agreeing with *citj* which is an acc. pl. fem. The best way to account for this is to assume that beside the regular feminine noun *cit* there also did exist a neuter *cit* (cf. Masser 2002:189). The form still provides a useful example of the suffix *-līh* for the purpose of the database analysis.

This form seems to be formally a 3<sup>rd</sup> person plural optative. We would expect the vowel of the ending to be  $\bar{e}$ , but here it is represented by an the letter *a*. This suggests that this vowel has undergone some secondary process and cannot be used in our calculations, neither as an example of long or short *e*. There are two further examples of this: *arbeitsan* 109.17 and *lesan* 110.15. These forms are not used in our calculations.

This form is a translation of Latin *nullius* which is a gen. sg. masc. Here a scribal error has occurred, *noheiner* has been written for *noheines*. Steinmeyer (1916:243) suggests that the reason for this could be that the German scribe misread *nullius* as nominative *nullus* and glossed accordingly. This seems to be a plausible explanation. It is at least clear that the form does not qualify as an example of nominative *-ēr* and is therefore left out of the database.

92.10 *duruftigohe* 'to need'

The word *duruftigohe* has a colorful derivational history. The base noun is *duruft*, itself a deverbal noun which has had an adjectival derivational suffix *-īg* added to it. A productive deadjectival *ō*-verb has then been formed on the base of this adjective. When the optative ending *-e* is added to the verb stem we have *h* written before it. It is not clear whether this *h* has some phonetic backing or is simply orthographical. Perhaps it is reflecting some sort of a hiatus filler and might be of the same nature as the *h* in *hachustim* (51.16) discussed above. The form is entered into the database twice as an example of *ī* and *ō* in unaccented syllables.

96.17 *murmulodin* 'murmur'

Here we have another example of a final *-n* instead of the expected *-m*. The form is a dative plural of an *īm*-stem. As before the word is entered into the database as an example of *īm*-ending (as well as the long *ō* in *-ōd-*). See discussion about *vnhorsamen* 21.09 and *erstantem* 56.08.

96.18 *municha* 'monks'

It is slightly problematic to read this nom. pl. masc. form. The Latin counter part word *monachi* has been erased along with this OHG gloss for it. It is still possible to read vague letter formations and the leg of the *h* is still clearly visible. The final *a* is also partially clear, at least it is clear that there is no double writing in this example (cf. Cod. Sang. 916, page 96, Stiftsbibliothek St. Gallen / Codices Electronici Sangallenses). The form is therefore included in the database.

98.09 *abandmuase* 'evening meal'

This form looks like a dat. sg. neut. from *abandmuas*. There are some indications that a genitive would be expected here, i.e. the Latin source word is genitive *caene* which

along with another genitive *refectionis* ‘meal time’ is dependent on *hora*, ‘hour of the evening meal etc.’ What seems strange is that one of these genitives is glossed with what appears to be a dative whereas the gloss for *refectionis* is the genitive form *des inbizzes*. With this in mind it seems possible that *abandmuase* is a scribal error for *abandmuases* (thus Masser 2002:198). The Latin sentence is not fully glossed and hence it is hard to evaluate the plausibility of the OHG syntax. Even though genitive seems likely it is not impossible that behind the dative gloss some OHG construction is inferred. Therefore the form has been taken at face value and is labeled as dative, may it be in a slightly odd function. The long vowel of the root is not effected by this uncertainty and the form is not so problematic it cannot be useful in the database.

98.15 *citjt* 'hours, times'

The Latin phrase *nocturnis horis* is glossed as *nahtljhhem citjt*. It is clear that the form *citjt* is defective. It is meant to be a dative plural form and should thus be *citjm*. The writing of *t* for *m* is not easily explained, but might have something to do with abbreviations. The *t* could have its origin in an *i* with a superscript bar, i.e.  $\bar{i}$  becomes  $|t|$  in the hands of inattentive scribe. The main problem with this idea is that there is an *i*-symbol as well in the contested form which is part of the ligature *tj*. There is no indication that this was added later. We would also need to assume that the scribe had poor intuitions about the language he was copying. The form is still safe to use as an example of a long root vowel.

101.17 *chirihhun* ‘church’

This form has been partially erased in connection with a correction in the Latin phrase it is glossing: *foras oraturio* which has been corrected to *foras oratorium* ‘outside the church’. The erasure involved in this correction has caused damage to the OHG gloss and the last two letters of *chirihhun* have been erased as well (cf. Cod. Sang. 916, page

101, Stiftsbibliothek St. Gallen / Codices Electronici Sangallenses). We can still read the erased letters at least to the extent we can exclude *chirihhuun* as a possible reading. Thus the form is useful in the database.

104.04      *armeinsamont*      ‘closed’

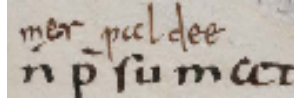
It looks like this form has been effected by a scribal error. This appears to be past participle form so we would expect *armeinsamot*. The extra *n* is probably influence from the previous word *sint* ‘are’ (cf. Steinmeyer 1916:251). We would not expect the choice of spelling for the stem vowel of the verb to be affected by this error. The word is processed as a past participle in the database but should be used with caution.

105.02    *erpaldee*      ‘presume’

The actual form in the manuscript is *mer paldee*. This does not make a whole lot of sense. The Latin text is *quid ne presumat* glossed with *uuas mer paldee*. The common OHG verb corresponding with *praesumere* is *erpaldên*. If we acknowledge that some sort of corruption has taken place here we may assume that the intended verb form here is *erpalde*. What then remains to be explained is the remaining *m* prefix. It is likely that the *m* is a miscopying for the negative prefix or negation *ni*. This is how Masser in his edition (1997:268) emends the text. This is very likely since we have a negation in the Latin text.

Masser’s (1997) reads *meer paldee* in the manuscript, i.e. double writing of the root vowel. If this was correct it would be the only example of double writing of *e* of Scribe 3 for long root vowels). This extra *e* is not to be found on the actual page as we can see from Figure 4 below.





**Figure 4:** Photo of the relevant place in the manuscript (cf. Cod. Sang. 916, page 105, Stiftsbibliothek St. Gallen / Codices Electronici Sangallenses).

The *e*-letter is quite clear and it is not double in the same way as the final two letters of this particular form. The *e*-letter is slightly peculiar as it does have an extra pen stroke running down from the end down towards the left. Masser (1997) might be interpreting this as a ligature although he does not comment on this peculiar letter. Looking at other examples of *e*-letters of Scribe 3 we do not find anything similar. If we choose to interpret this as the only example of  $\bar{e}$  root vowel in the contribution of this scribe it entails an improbable scenario: If the copyist copied *nierpalde* as *meer palde* he modified the spelling of what he assumed to represent *mēr* from *mer* with a single *e* to a form written with a long vowel. This suggests that the indication of length originates here from Scribe 3 and is not part of the source manuscript. It is hard to determine what the motivating factor in his choice of symbols is. Is he actively trying to represent the quantity of vowels in his own language? Why does he only do it here and not in the other ten examples of *mer* written with a single vowel, or anywhere else for that matter? The conclusion is that we will dismiss the peculiar *e* as an attempt to denote length and simply read the manuscript as *mer paldee* and interpret it as a miscopying for *ni erpaldee*. The form is thus treated in the database.

106.02 *sinan*

‘his own’

This form is unambiguously a acc. sg. masc. of the reflexive possessive pronoun. However it seems to be functioning as a compliment to a noun that is clearly in the dative, occurring in the prepositional phrase *fora uzlite sinan* ‘for his error’. The word *uzlit* ‘error’ is a masc. *a*-stem noun and the regular dative is *uzlite* (Schützeichel

1995:306). This is in line with the syntactic evidence as with the preposition *fora* we would expect dative. If this is the case the accusative *sinan* is the odd one out (Masser 2002:208). Since it is impossible to interpret *sinan* as anything but accusative it cannot be excluded that the whole phrase is in the accusative, which would make *uzlite* the form that needs to be explained. In an attempt to find case congruency we might follow Ibach (1956:91) and take *uslite* as an accusative singular with a weakening of the final vowel *-i* to *-e*. It seems to me that the explanation for this odd discrepancy in case use might be found in the textual evidence itself. In the following line 106.03 we find the verb form *uzkelite* (see 106.03 below). It is conceivable that the scribe confused these two words and added the extra *-e* to an intended accusative noun form. Again this explanation entails that the preposition *fora* takes accusative here which is not what we expected. The result is that *sinan* is entered into the database as an acc. sg.

106.03 *uzkelite* ‘make a mistake’

This form is hard to analyze with certainty. It is used to gloss Latin *excessisse* which is a perfect infinitive. Wessing (1992:324) takes it as a 3<sup>rd</sup> sg. pres. opt. of the verb *ûzkelîdan* ‘einen Fehler machen, falsch machen’. According to Masser (2002:208) this interpretation does not work well in the context but will be accepted here for the lack of any better interpretation. This verbal form is thus entered twice into the database, as an example of *ī* in a root syllable and as an example of *ū* in an unaccented syllable.

106.17 *rehchar[i]* ‘avenger’

Here the Latin text has an error, i.e. the adverb *ultra* ‘voluntary’ which is normally found here in most preserved manuscripts of this text has been turned into the noun *ultor* ‘avenger’. This erroneous word has been glossed correctly as a noun with the OHG *rehchar* (Masser 2002:208). The writing *rehchar* for *rehchari* is considered a

scribal error. The reason why the final *i* is missing is not clear. It is not due to space consideration or damage. Even though this is the last word in the line there is margin left on the page (cf. Cod. Sang. 916, page 106, Stiftsbibliothek St. Gallen / Codices Electronici Sangallenses). The word is entered as *rehchar[i]* in the database as an example of potential  $\bar{a}$ .

107.03 *antlaz* 'favor'

This can be divided into its morphological segments as *ant+laz*. The second part is the root found in the verb *lâzzan*. The vowel in *-lâz* is long as well but we may assume the accent was on the first part of the compound. There is some room for interpretation of the case form here. It most likely accusative but nominative can not be excluded. The reason for this confusion is the ambiguity of the corresponding Latin sentence which has difficulties associated with its interpretation (cf. Masser 2002:209). The case form is not of utmost importance here so we accept the accusative interpretation and enter the form into the database.

107.13 *citi* 'hours, times'

We would expect a regular dative plural form *citim* here as a gloss for Latin *horis*. It is most likely that this is another example of an omitted superscript bar as a nasal abbreviation and the intended form was *citī*, i.e. *citim* (Masser 2002:210). The form is thus entered into the database.

108.10 *antreididom* 'order'

Here we have another example of *m* being written for an *n*. This has been discussed in 65.08 and 85.11. Again there are no phonological nor textual reasons we can invoke to explain this spelling (e.g. labials or similar syllables in the immediate environment). The word is treated in the same manner as similar words have been treated before.

111.04 *sprahchon* ‘speech’

Another example of final *-m* is realized as *-n*. We refer back to the discussion about in 56.08 and 85.11.

111.05 *leczun* ‘lesson’

There is a space in the line between *lec* and *un*, suggesting that the intended writing was an abbreviation of the stem plus the ending. The Latin word form glossed here is *lectioni*. It is not clear whether the OHG form is intended to be an accusative or a dative form (Masser 2002:313). The Latin phrase is: “non est intentus lectioni” ‘is not attentive to the lesson’ glossed as *nist anauuartenter leczun*. The OHG verb is *anawarten* ‘attend’ which usually takes accusative (cf. Schützeichel 1995). The word is thus treated in the database.

111.13 *leczum* ‘lesson’

This form ends in a final *-m* not *-n* as we would expect. Same thing occurs in another form of this same word in *leccium* 112.18. This is either a scribal error, or the OHG is using dative plural forms to translate a Latin sg. “lectioni” (cf. Masser 2002:217). Since we cannot determine with certainty what form we are dealing with we do not use these forms in our calculations.

112.01 *unmahtiken* ‘helpless’

Final *-m* is realized as *-n*, c.f. the discussion above in 56.08 and 85.11.

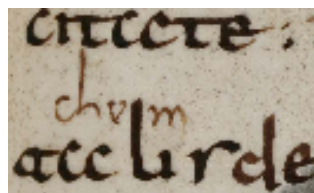
112.04 *sin* ‘be’

This word is not actually in the manuscript. The only reason it is mentioned here is that Steinmeyer (1916) emends the text to include this form. Steinmeyer assumes the

existence of OHG *sin kidrunan* ‘they may be overwhelmed’ as a gloss for Latin *oppremant*. The Latin has been crossed out and the OHG gloss has been erased to make room for the Latin correction *opprimantur*. Since the form is not attested in the manuscript it is not part of the database.

#### 113.11 *atumlihchvm* ‘spiritual’

This is yet another example of final *-m* where we would expect a final *-n*. This is a weak adjective in the gen. sg. fem so the form is quite clear. The writing of *m* for *n* has been discussed above, cf. 56.08 and 85.11. There is some indication that this *m* might have been corrected to an *n* (cf. Steinmeyer 1916:257), i.e. there are discolorations in the manuscript that can be interpreted this way. This has also been interpreted as a shortening of the last stroke of the *m* which was unusually long and not a change of *m* to *n* (Masser 1997:294). Having viewed the relevant page it looks as if the slight discoloration of the last stroke of the *m* is taken as a deliberate correction it is not enough to turn it into an *n* but it seems to be an overly drastic shortening of an alleged long stroke, cf. Figure 5 below.



**Figure 5:** Photo of the relevant place in the manuscript (cf. Cod. Sang. 916, page 113, Stiftsbibliothek St. Gallen / Codices Electronici Sangallenses).

The word is treated in the database as gen. sg. fem. and the ending is taken as an example of *ūn*-ending.

118.09 *minnirom* 'lesser'

The glosses are somewhat fragmentary here so it is hard to judge the syntactic context. The form is emended to *minniron* by Steinmeyer (1917) and taken as an acc. sg. The form is clearly dative plural and this meaning can be accommodated, in the sense 'lesser things' cf. Masser 2002:223. The form is therefore included in the database as dative plural and analyzed as such.

119.12 *einigan* 'each'

Here we would expect a dative form after the preposition *fona*. There is a similar problem discussed in 28.16 and especially 75.13. Instead of considering this a scribal error or some sort of a grammatical oversight it seems to me more plausible to take this form at face value, namely as an accusative, and consider the case use with the preposition *fona* to be different here. Besides the regular dative complement it could sometimes have complements in the accusative (cf. Schützeichel 1995, see also 106.02 concerning a similar problem with preposition *fora*). The form is thus tagged and treated in the database.

120.12 *hvvealihnessim* 'characteristic'

The initial *h* was probably never intended to be part of the form in the manuscript. The spelling without the *h* indicates a sound change where an initial consonant cluster with *h* as a first member was simplified. This change took place in the course of the 9<sup>th</sup> century (Braune/Reiffenstein 2004:147). The reason *h* is added to the initial consonant here is that we have spellings of both types in this manuscript and it is important that they are unified when it comes to classifying and analyzing them in the database.

120.17 *metamun* ‘middle’

Here we have some philological controversy. The manuscript itself has only the form *unscaftim* of which the first two letters are supposed to belong to this alleged word. This is the result of an apparent misinterpretation by the scribe in question. The Latin source text has *mediocrjbus locis* ‘temperate regions’. In a similar passage in 133.09 we have the OHG gloss *derv metmnv sceffi* (dat. sg. fem.) for *locum mediocrj*. In light of this scholars have interpreted the gloss here as originally having been two words, i.e. *un scaftim*, and *un* being a shorthand for *metamun*, i.e. only the ending is written (Masser 2002:227). An older view assumes the existence of a single compound word *metamunscaftim* (thus Steinmeyer 1916:260). However this view is harder to maintain (cf. Masser’s discussion cited above). We therefore will include the word *metamun* as an example of the *ūn*-ending and consider it as a separate entry in the database. The misspelling of the scribe is thus of the same nature as the one discussed in 90.12.

121.08 *smahlichot* ‘cheaper’

This form in the manuscript is generally assumed to contain a scribal error. The final *t* should really be an *r*. We can’t find any likely reason for this error from looking at the context in the manuscript. The form itself is clearly a comparative form of an adverb with the regular comparative suffix *-ōr* (Braune/Reiffenstein 2004:228-229). Thus all editors have emended the text accordingly. The form is entered into the database as an example of this comparative form.

121.12 *intfahant* ‘received’

The form is best taken to be a defective nom. pl. masc. form of the present participle, i.e. *intfahante*, glossing Latin *accipientes*. This is what both Steinmeyer (1916:260) and Masser (2002:228) choose to do. The form itself could of course be taken as a 3<sup>rd</sup> pl. pres. ind. but that does not fit the context all too well. There is no indication in the

manuscript that the final *-e* might once have been written. The form is therefore processed as a present participle in the database.

123.14 *itlot* ‘repayment’

The form *itlot* is considered to be a scribal error for *itlon* ‘repayment’ (thus Steinmeyer 1916:262 and Masser 2002:232). However it has been previously pointed out in 33.17 that this scribal error is most unusual and hard to account for. There we had a parallel example of *loot* for *loon*. Simply the fact that it occurs more than once, affecting the same word part, is reason enough to be suspicious. We may therefore postulate that besides regular *itlōn* there existed a by-form *itlōt*, in the same manner as *lōn* and *lōt* cf. 33.17 above. There is a genitive *itloones* attested in 46.05 which somewhat undermines this hypothesis. We can assume that this variation in the final consonant did not influence the length of the vowel and thus we can use this form in the database.

126.01 *fouuem* ‘few’

Here we have the Latin phrase *paucis diebus* ‘few days’ but only the adjective is translated, i.e. *fouuem*. We can say with relative certainty that the full OHG counterpart would be *fouuem tagum* and thus we assume that the adjective is masculine, agreeing with masculine OHG word *tag*. The form is tagged and processed accordingly in the database.

128.12 *kapetataner* ‘asked’

The Latin counterpart is *rogatus*. The expected form would be a preterite participle of the verb *pittan*, i.e. *kapetaner* (cf. Masser 2002:239). The same syllable has been written twice here which is an example of dittography, a common scribal error. The form is still useful to us and remains in the database.



129.04 *nivvichuemaner* ‘newly arrived’

This formation is interesting. This adjective is basically a preterite participle of the verb *queman* ‘come’ which forms the second part of this compounded word + adjectival stem *niwi-* ‘new’ prefixed to it meaning ‘newly arrived’. The ablaut grade of the participle is full-grade although *queman* is 4<sup>th</sup> class strong verb and should have a zero grade participle. This is common in OHG (Braune/Reiffenstein 2004:283). The grammatical classification of the form is not in doubt so we can use it as an example for *ēr*-ending and thus it is processed in the database.

129.08 *ketaniv* ‘made’

It is not clear whether this should be taken as a nom. sg. fem. or nom./acc. pl. neut. The Latin sentence is an ablative construction that seems to have caused problems for the glossators. We have Latin: “aut facta sollemniter donatione (conferat monasterio)”, i.e. ‘or make a formal donation of them to the monastery’ glossed as *ketaniv tultlihchiv kivvaltīdv*.<sup>68</sup> The first two forms are adjectives in agreement but not clear whether they are nom. sg. fem or nom. neut. pl. The last of the three is surely a dat. sg. fem. (Masser 2002:240). As we have mentioned before in 54.09 a glossator has been known to translate *facta* as a neuter pl. even though it did not agree with the rest of the syntax. At this point in the OHG glosses syntactic cohesiveness seems to be more or less abandoned so probably the adjectives are best interpreted as to be nom. pl. neut. here. This is how the form is eventually treated in the database.

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<sup>68</sup> Latin *solemniter* is an adverb so it would be more literally translated as ‘formally’.

129.17 *vvahhvse* ‘dressing room’

The expected form here is *vvathvse*. This is a compound of *wât* ‘clothes’ and *hūs* ‘house’. We have examples of this word in 121.13 and 122.04 and in both cases the form is *vvathvse*. Masser (1997:316) considers this a reading error of the copyist and bases that claim on his perceived existence or lack of letter detail in the source manuscript.<sup>69</sup> Although this is an option, it is not inconceivable that when these two words were compounded we had some sort of an assimilation take place between the final consonant of the first member and the initial consonant of the second member. This assimilation might not have been consistently noted in the spelling. This unusual spelling does not affect how the word is treated in the database.

130.01 *kenentemv* ‘persuaded’

The form is a dative masc. of a present participle, of what could be an *ē*-verb but the class of the verb in question is not clear (Masser 2002:241). Steinmeyer (1916:266) emends the form to *kespanentemv* from verb *kespanan*, which is used elsewhere in the text to gloss the same Latin verb as here: “suadere” ‘persuade’. This seems plausible. Mensel (1902:41) treats the form as a participle from an *ē*-verb. This word is not included in the active database.

132.03 *urchundom* ‘witnesses’

The actual form in the manuscript is *urchndom*. This has to be considered a scribal error. There is no abbreviation or any other attempt to indicate the vowel which surely must have been there. It is possible that the error lies in the misreading of |ū| in the source manuscript (i.e. *u* with a superscript bar). The *u* was miscopied as *n* and the

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<sup>69</sup> Masser is difficult to interpret: “Verderbnis aus offener Fehllese durch den Kopisten: in *vahhvse* Hs., wobei das *s* den Ansatz eines Querstrichs hat, aber keine Unterlänge aufweist und folglich auch als *s* zu lesen ist; gemeint ist zweifellos in *vvathuse* (so auch E. v. Steinmeyer).” What he is referring to with these *s*-symbols is not immediately obvious. There is probably a typo in the book where the first *s* is supposed to be an *h* and the second *s* is supposed to be a *t*.

nasal not noted. This problematic reading does not affect the ending which contains an example of a long vowel we can enter into the database.

132.05 *ervvarto* ‘priest’

The expected form is *evvarto*, i.e. without the *r*, a regular genitive plural of *êwart*. The word occurs in nom. sg. *evvart* in 137.09 and the gen. pl. *evvarto* also occurs in 135.12. The reason for this error is possibly found in the context of the word in the manuscript. The first part of the word, i.e. *er-*, is written right above the *-er-* of Latin *sacerdotum* which the OHG gloss is referring to. This might have influenced the scribe. The word is still useful in our investigation and is an active part of the database.

133.15 *rumen* ‘distant’

Here we have another example of the dat. pl. ending *-ēm* being written *-en*. This is discussed in 21.09, 56.08 and 85.11. We have observed confusion between final nasals before where *m* was written for *n* and vice versa. Here the explanation could be phonological, i.e. this could be a nasal dissimilation. As with other similar forms this example is still used in the database.

135.06 *kelekit* ‘learned’

A curious error is found in this word. The expected form is *kelerit* but the *r* has been replaced by a *k*. The reason is probably an oversight by the scribe, i.e. he was influenced by the initial *ke-* syllable. The Latin verb *erudere* is consistently glossed with *lêran* so there is no reason to assume another OHG verb is involved here. The root vowel is not affected by this apparent corruption and thus the form is used and analyzed in the database as part. pret.

137.08 *ardarvvis* ‘different’

The expected form is *andarvvis* and thus editors mend the attested form to conform with this (Steinmeyer 1916:272, Masser 1997:332). The same word is attested in 32.17, 68.06, and 128.05 with no particular peculiarities in spelling. It is easy to see how a scribe could confuse *r* and *n* as they have very similar traits in the orthography of the manuscript. The letter in question on the manuscript page is though clearly an *r* (cf. Cod. Sang. 916, page 137, Stiftsbibliothek St. Gallen / Codices Electronici Sangallenses). Such confusion is the likeliest reason for this error. A badly formed *n* could easily have been read as *r* by an inattentive copyist or a lackadaisical scribe might have written out the intended letter with a sloppy final stroke. It seems farfetched to explain this spelling as reflecting some sort of phonological development, e.g. an assimilation of the *n* to the *r* in the next syllable. The spelling or copying error does not diminish the usefulness of this form in the database.

142.06 *ruachalosom* ‘negligent’

This is yet another example of final *-m* for *-n*. This phenomenon has been discussed above in 21.09, 56.08, 85.11 and elsewhere. The word is treated in the same manner as the other examples above and entered into the database.

146.03 *elljnodes* ‘envy’

This form looks like a genitive singular. However it is in a context of nom. plural and is used to translate a nom. pl. in a series of such forms. The (standardized) Latin text is “Hinc suscitantur inuidie rixae detractioes aemulationes.”<sup>70</sup> ‘This is an open invitation to envy, quarrels, slander, rivalry...’.<sup>71</sup> This is glossed as *danan sint*

<sup>70</sup> Text in manuscript: “Hinc suscitantur inuidie rixae acde tractiones emulationes” (cf. Masser 1997:351)

<sup>71</sup> English translation of the Latin text taken from Fry (1981:285). The OHG text can be translated a little bit differently, e.g. *ellinōd* is usually translated as ‘envy’ and *abanst* ‘envy/jalousy’.

*eruuehchit abanstj secho pisprahho elljnodes*. Masser (2002:258) suggests that the scribe made an error in haste “Flüchtigkeitsfehler” and wrote essentially the Latin nom. pl. ending *-es* onto the OHG word. Another possibility for such a “Flüchtigkeitsfehler” would be that the scribe misread *detractioes aemulationes* as *detractioes aemulationis*, i.e. took the second word to be a qualifying genitive, ‘slander of envy’ or something of that sort, and glossed the phrase accordingly. The *ō* of the *ōd*-suffix would be expected in either form and thus the form is entered into the database as a nom. pl. masc.

146.07 *florinii* ‘destruction’

This word is in standardized form *ferlornî* (e.g. Daab 1959:179) It is not immediately clear whether the prefix is simply not fully written (abbreviated) or has been reduced to a simple *f*- as a result of some phonological process. The *i* between *r* and *n* has to be epenthetic or a scribal error. The form is entered into the database as the final vowel was clearly long.

146.16 *zehaningarro* ‘dean, decanus’

The word here is *zehaningâri* in the acc. pl. The expected accusative plural ending is *-a*. The final *-o* here must be some sort of scribal error (cf. Masser 2002:258). Formally this could be a genitive plural. The gloss is not found in a clear syntactic context, i.e. the adjacent words are not glossed so the possibility of a genitive cannot be excluded. The doubling of the *r* before the ending is an assimilation of *r* and an earlier *j* of the stem. This is an Alemannic feature (cf. Braune/Reiffenstein 2004:191, cf. also section 6.2.3 below). The view taken here is to take the form at face value and analyze it as a genitive plural. It is thus entered and processed in the database.

147.16 *ubarmvatji* ‘superb’

The *v* in *mvatji* has been added between the *m* and *a* after the word was written. As a result it is smaller and slightly raised. The form is otherwise not affected by this later correction and can be used in the database.

149.01 *caugrot* ‘to do nothing’

Here we have a Latin infinitive *uacare* that has been glossed with OHG *caugrot*. If we assume that this form was intended to be an OHG infinitive we have to consider the final *t* to be a misspelling for *n*. This is the view of Masser (2002:60) who dismisses the possibility that this could be a preterite participle form “ist kaum als unflektiertes Partizip Perfekt ... anzusehen” However since at this point in the manuscript the glosses are getting infrequent and lacking almost all syntactic context we can not exclude that *caugrot* was intended to be what it formally appears to be, namely a undeclined preterite participle. This is the label it receives in the database. The interpretation of the form as a 3<sup>rd</sup> sg. present ind. cannot be excluded either.

The apparent misspelling of *n* as *t* has been discussed above with regard to 33.17 *loot* for *loon* and 123.14 *itlot* for *itlon*. There we were specifically seeking explanation for these two forms. An explanation of the verb form in question along the same lines is not possible.

149.05 *eddesljhhera* ‘anyone’

The ending here is peculiar. The regular nom. sg. ending of the adjective is *-ēr* and we have various examples of it (*-er* or *-eer*) throughout the text. The addition of an *-a* is hard to explain and does not have any obvious source neither in the manuscript context nor the grammar. Since the ending is obviously corrupt it will not be taken into consideration in the analysis here and not be part of the active database. The form is part of the active database as an example of the suffix *-līh*. It should be mentioned

that formally this could be a genitive sg. fem. but that is totally irreconcilable with the context: “Et mox ut aliquis pulsaverit” ‘As soon as anyone knocks’.<sup>72</sup> The OHG gloss refers to *aliquis*.

#### 4.8.4 Conclusion

Having reviewed all these problematic forms and argued whether to include them or exclude them from the database we are now ready to precede to the next step: the analysis of the data. The information in the database provides us with all the necessary tools to answer the questions and evaluate the hypotheses laid out in Section 4.8.1. The database in its entirety, with detailed entry for every relevant word in the manuscript is found in *Appendix 1*. Rejected words are found in *Appendix 2*.

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<sup>72</sup> English translation of the Latin text is taken from Fry (1981:289).

## 5 Results

In the previous section we established how the manuscript was put together. There were two fundamental divisions observed. One was how the text was worked on by three different scribes and how we can assign sections of the text to each of these. The other one was how the manuscript was divided into quires that perhaps were developed simultaneously. We also established the criteria for grouping the word forms and defined the extent of the database. All problematic forms were evaluated and either included or excluded from the database. In this section we will consider the information from the database in order to attempt to test the hypotheses set forth in section 4.8.1.

### 5.1 Basic results

Before we start to address specific hypotheses set forth above we will look at somewhat raw numbers. All in all there were 3514 tokens entered into the database. These include the problematic words discussed above. All in all 235 examples were deemed problematic and of those 95 examples were excluded (*Appendix 2* contains a table of all the rejected words). The result is that there are 3419 tokens in the active database that we can analyze further and use as basis for statistical calculations.

#### 5.1.1 *Division between root and non-root/unaccented*

A basic distinction was made between two types of forms: on one hand we have forms that contain a long vowel in the root syllable and on the other hand we have forms that contain a long vowel in the non-root syllables which we assume was unaccented (i.e. affixes, endings). The proportions between these two types were about 45:55. Of the long vowels there were 1511 found in the root position and 1908 in non-



root/unaccented position. The table below shows the number of examples of each type for the five different vowels.

**Table 5.1-1**

Vowel	Accent	Total	%
$\bar{a}$	<i>Root</i>	307	74.7%
	<i>Non-root</i>	104	25.3%
Total		411	
$\bar{e}$	<i>Root</i>	176	22.6%
	<i>Non-root</i>	603	77.4%
Total		779	
$\bar{i}$	<i>Root</i>	633	51.9%
	<i>Non-root</i>	586	48.1%
Total		1219	
$\bar{o}$	<i>Root</i>	258	36.4%
	<i>Non-root</i>	450	63.6%
Total		708	
$\bar{u}$	<i>Root</i>	137	45.4%
	<i>Non-root</i>	165	54.6%
Total		302	
Grand Total		3419	
	<i>Root</i>	1511	44.2%
	<i>Non-root</i>	1908	55.8%

It is interesting to compare the proportions between the different vowel qualities. We notice that about three fourths of all the examples of  $\bar{a}$  occur in the root position and one fourth occur in the non-root position. The proportions are exactly the opposite when it comes to  $\bar{e}$  whereas  $\bar{i}$  and  $\bar{u}$  show about equal distribution between both types. The distribution of  $\bar{o}$  falls somewhere in between. The reasons for these differences lie in the historical linguistic development, which in this regard is coincidental. There is no logical predictor that can indicate what vowel becomes prominent in non-root syllables and not as prominent in root syllables. Even though we cannot explain these differences we need to be aware of them and keep them in mind when we further explore the distribution of the vowels in Cod. Sang. 916.

### 5.1.2 *Division between scribes and quires*

We can now start analyzing the material to test and evaluate the other hypotheses set forth in section 4.8.1. As was already pointed out by Steinmeyer (1874) and by Mensel (1902) the double vowel writing is largely present in the contribution of Scribe 1. It was also evident that the double vowel writing was not consistent and within the contribution of Scribe 1 there was difference as to how it manifested itself. It is therefore clear that Scribe 1 will be the main focus when looking at the evidence for the *mēs*-ending and other examples of long unaccented vowels. Whobrey (1990) was able to define which scribe was responsible for which part of the manuscript as well as how the manuscript is divided into quires. We can evaluate the contribution of Scribe 1 in light of these divisions.

In the contribution of the other two scribes (2 and 3) we also have a few examples where we find double vowel spelling. These cases are very few and limited to certain categories and not at all consistently. Before looking at the different contributions of Scribe 1 we will look at the examples attributed to Scribe 2 and Scribe 3.

#### 5.1.2.1 *Scribe 2*

The section of the manuscript that Scribe 2 was responsible for is not very voluminous, only four pages (48-51) in the early part of Quire IV. All in all he is responsible for 118 examples of long vowel forms or 3.4% of the total of all the forms in the analyzable part of the database. The first three quires are thoroughly glossed by Scribe 1 as well as the first page of Quire IV and in that part of the text we have many examples of double writing of long vowels. The change of this spelling feature after Scribe 2 takes over is quite striking.

**Table 5.1-2**

<b>Root</b>				<b>Non-root</b>			
<i>Vowel</i>	<i>Single</i>	<i>Double</i>	<i>Total</i>	<i>Vowel</i>	<i>Single</i>	<i>Double</i>	<i>Total</i>
<i>a</i>	14	1	15	<i>a</i>	2		2
<i>e</i>	3		3	<i>e</i>	26		26
<i>i</i>	12		14	<i>i</i>	18	1	19
<i>o</i>	9		9	<i>o</i>	18	1	19
<i>u</i>	7		7	<i>u</i>	9		9
<b>Tot:</b>	45	1	46	<b>Tot:</b>	73	2	75

As we can see from Table 5.1-2 Scribe 2 does not use double vowels to any significant extent. We only find three examples in his entire contribution. There is one example of *ā* root vowel, the adverb *saar* (51.07). The other two examples are from non-root positions, the feminine *īn*-stem *smahlihhii* (48.03) and the preposition or adverb *anoo* (51.11). The final long *ī* in *īn*-stem forms seems to have been indicated in the orthography more often than other long *ī*. It is also found in the contribution of Scribe 3 who otherwise uses double vowels quite sparingly. The case of the *oo* is very noteworthy because it appears to be a case where a long vowel is not etymologically confirmed. However this case of double written *oo* can be explained as a scribal peculiarity (cf. section 6.4.9 below) and not indicative of a long vowel. It is clear we cannot deduce much from the use of double vowel in this four page section by Scribe 2, except that in general he did not apply this orthographical feature to indicate vowel length.

#### 5.1.2.2 Scribe 3

Scribe 3 is responsible for a significant portion of the text in the manuscript. He wrote the larger part of Quire IV as well as Quire V and VIII in their entirety and parts of Quire VI, VII and IX. All in all he is responsible for 1319 examples of long vowel forms or 39% of the total of all the forms in the analyzable part of the database. His

use of double vowel though is very restricted and of limited consistency. The table below shows the proportions for each vowel.

**Table 5.1-3**

<b>Root</b>				<b>Non-root</b>			
<i>Vowel</i>	<i>Single</i>	<i>Double</i>	<i>Total</i>	<i>Vowel</i>	<i>Single</i>	<i>Double</i>	<i>Total</i>
<i>a</i>	99	1	100	<i>a</i>	40		40
<i>e</i>	60		60	<i>e</i>	208	12	220
<i>i</i>	253	4	257	<i>i</i>	217	25	242
<i>o</i>	96	1	97	<i>o</i>	188		188
<i>u</i>	36		36	<i>u</i>	79		79
<b>Tot:</b>	544	6	550	<b>Tot:</b>	732	37	769

As we can see from Table 5.1-3 Scribe 3 uses double vowel writing very sparsely. This is especially true when we look at root syllables. We only find one example of double *a* writing as well as double *o* and four examples of double *i*. The *i*-examples are only two word forms that occur twice. Of those the form *drji* contains a *rj*-ligature.

**Table 5.1-4**

<b>Prefix</b>	<b>Word</b>	<b>Place</b>	<b>Quire</b>	<b>Type</b>	<b>Form</b>
ana	kaant	84.04	VI	verb	3rd pl. pres. ind.
	drji	53.17	IV	num	
	drji	63.09	V	num	
foraki	siit	135.08	IX	verb	3rd sg. pres. ind.
foraki	siit	135.15	IX	verb	3rd sg. pres. ind.
	loon	86.17	VI	noun	nom. sg. neut.

Why indeed these forms have double vowel writing and not other long vowel forms is not immediately clear. The examples are found in various quires. It is noticeable that the only examples of *aa* and *oo* stem from the same part of the manuscript, a short section written by Scribe 3 in Quire VI, between two sections written by Scribe 1. It is also noticeable that all the examples are monosyllables or prefixed monosyllabic forms.

When we look at the non-root examples we find more examples of double vowel writing. They are all examples of either *ee* or *ii*.

**Table 5.1-5**

Prefix	Word	Place	Quire	Type	Form
er	paldee	105.02	verb	VII	3rd sg. pres.opt.
ka	stillee	105.07	verb	VII	3rd sg. pres.opt.
	sakee	113.15	verb	VIII	3rd sg. pres.opt.
	lirnee	126.03	verb	VIII	3rd sg. pres.opt.
ana	vvartee	126.07	verb	VIII	3rd sg. pres.opt.
er	baldee	132.17	verb	IX	3rd sg. pres.opt.
zva	vvartee	133.04	verb	IX	3rd sg. pres.opt.
	trahtohee	134.07	verb	IX	3rd sg. pres.opt.
pi	porgee	135.16	verb	IX	3rd sg. pres.opt.
pi	porkee	136.09	verb	IX	3rd sg. pres.opt.
zva	vvartee	137.01	verb	IX	3rd sg. pres.opt.
	doleen	93.03	verb	VI	infinitive
	uuihii	58.06	noun	IV	nom. pl.
	suuikilii	92.05	noun	VI	nom. sg.
	ubarazalii	94.10	noun	VI	nom. sg.
	ubarazzalii	94.14	noun	VI	nom. sg.
	ubarazzalii	94.16	noun	VI	nom. sg.
	mihhilii	94.18	noun	VI	nom. sg.
far	traganii	95.14	noun	VII	acc. sg.
	mendii	113.12	noun	VIII	dat. sg.
	mezlihchii	120.13	noun	VIII	dat. sg.
	farauuii	121.05	noun	VIII	dat. sg.
	grozzii	121.05	noun	VIII	dat. sg.
	suntrjclichii	122.14	noun	VIII	gen. sg.
	suntrjclihchii	122.18	noun	VIII	gen. sg.
	nefkirji	125.04	noun	VIII	gen. sg.
	dikii	125.18	noun	VIII	dat. sg.
	dikii	130.15	noun	IX	acc. sg.
	ekii	132.10	noun	IX	gen. sg.
	ervvirdii	133.06	noun	IX	dat. sg.
	castluamii	134.11	noun	IX	gen. sg.
	kastlvamii	134.14	noun	IX	gen. sg.
	vvenekii	134.18	noun	IX	nom. sg.
	keilii	136.10	noun	IX	acc. sg.

**Table 5.1-5 (continued)**

	horsamii	136.15	noun	IX	gen. sg.
	ekii	136.16	noun	IX	acc. sg.
	ejnstrjtii	137.15	noun	IX	nom. sg.

When we take a closer look at the examples we find them all to be of similar kind. The *ee*-examples are all but one word final. Furthermore, eleven out of fourteen are third person singular optative forms of *ē*-verbs. The one remaining example is an infinitive of an *ē*-verb. All the examples of *ii* are also word final and all are examples of *īn*-nouns.<sup>73</sup>

The distribution of the double vowel writing in the parts belonging to Scribe 3 is noteworthy. If the double writing is limited to specific categories it might indicate that the vowel in these categories were somehow different from the vowel elsewhere. Indications are that the double vowel writing in these particular categories does not adhere to the same principles as the double vowel writing of other categories in the text. The double vowel writing in the *ē*-verb optative forms probably does not indicate a long vowel but rather two syllables or some other phonological feature. This is discussed in more detail in section 5.3.1. The double writing of *īn*-nouns is found in contribution of all three scribes and seems to be partially phonologically conditioned. The spelling of *īn*-nouns is discussed in more detail in section 6.3.1. The result is that the double vowel writing found in the contribution of Scribe 3 is not of the same kind as the double vowel writing found in the contribution of Scribe 1. Scribe 3, like Scribe 2, did not in general apply this orthographical feature to indicate vowel length.

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<sup>73</sup> This scribe is also responsible for the pron. form *andree* which is a problematic form and not included in the active database, cf. 4.8.3

### 5.1.2.3 Reevaluating hypothesis (1)

Having looked at the instances of double vowel writing found in the contribution of Scribe 2 and Scribe 3 we can start to evaluate some of the hypotheses set forth in section 4.8.1. above. The first hypothesis was (1) *All instances of double vowel writing in the manuscript indicate a historical long vowel and thus should be interpreted as indicative of vowel length.* This hypothesis seems still to be good. The apparent exceptions can be explained. We have discovered that there are some instances of double vowels that do not indicate a historical long vowel, but rather denote two vowels belonging to different syllables. A slightly modified restatement of the second hypothesis is needed to capture this fact. (1) *All double vowel writing in the manuscript, besides final -ee, indicates a historical long vowel and thus should be interpreted as indicative of vowel length.*

We had already observed that hypothesis (2) did not hold and was replaced by hypotheses (2a) and (2b). Before we can evaluate hypotheses (2a) and (2b) we need to look closer at the contribution of Scribe 1.

### 5.1.2.4 Scribe 1

The contribution of Scribe 1 is of greatest interest for the purpose of this study as this scribe indicates on many occasions long vowel in unaccented syllables in his spelling. Scribe 1 is responsible for the bulk of the forms in the database, a total of 1982 forms, or about 58% of all analyzable forms. The double vowel spelling of long vowel is only prominent in certain sections of the manuscript which all are written by Scribe 1. However not all parts this scribe wrote feature double vowel spelling. We need to look separately at each quire to compare the use of double vowel writing in different sections of Scribe 1.

As mentioned before the OHG glossing commences on page 8 of the manuscript, which is well into the first quire. Therefore the first quire has fewer examples of OHG

word forms than subsequent ones. We will look at the proportions of double vowel writing for each vowel in both root and non-root position.

**Table 5.1-6**

***Quire I: Non-root***

<i>Vowel</i>	<i>n</i>	<i>y</i>	<i>Total</i>	<i>%</i>
<i>a</i>	6	0	6	0.00%
<i>e</i>	36	15	51	29.41%
<i>i</i>	26	11	37	29.73%
<i>o</i>	18	4	22	18.18%
<i>u</i>	8	0	8	0.00%

***Quire I: Root***

<i>Vowel</i>	<i>n</i>	<i>y</i>	<i>Total</i>	<i>%</i>
<i>a</i>	18	1	19	5.26%
<i>e</i>	13	3	16	18.75%
<i>i</i>	41	3	44	6.82%
<i>o</i>	10	10	20	50.00%
<i>u</i>	11	1	12	8.33%

We notice that there is a significant difference between the number of occurrences as well as the proportions of each vowel. There is also a huge difference in the numbers between non-root and root positions. We will now look at the numbers for Quire II to see if the proportions are in any way similar and if we can see any patterns merging.

**Table 5.1-7**

***Quire II: Non-root***

<i>Vowel</i>	<i>n</i>	<i>y</i>	<i>Total</i>	<i>%</i>
<i>a</i>	16	2	18	11.11%
<i>e</i>	35	70	105	66.67%
<i>i</i>	68	19	87	21.84%
<i>o</i>	56	18	74	24.33%
<i>u</i>	16	1	17	5.88%

***Quire II: Root***

<i>Vowel</i>	<i>n</i>	<i>y</i>	<i>Total</i>	<i>%</i>
<i>a</i>	50	5	55	9.09%
<i>e</i>	28	12	40	30.00%
<i>i</i>	91	5	96	5.21%
<i>o</i>	38	5	43	11.63%
<i>u</i>	31	0	31	0.00%

We also notice here that there is a significant difference between the number of occurrences as well as the proportions of each vowel. We see that there are both similarities and differences between the numbers here and the ones observed for Quire I. If we look at the non-root vowels we see that the proportions for *i* and *o* vowels are very similar whereas the proportions for *e* are very different. Almost 70% of all long *e* in non-root syllables are written with double vowel.



**Table 5.1-8*****Quire III: Non-root***

<i>Vowel</i>	<b>n</b>	<b>y</b>	<b>Total</b>	<b>%</b>
<i>a</i>	15	2	17	11.76%
<i>e</i>	23	60	83	72.29%
<i>i</i>	69	24	93	25.81%
<i>o</i>	34	32	66	48.48%
<i>u</i>	19	1	19	5.26%

***Quire III: Root***

<i>Vowel</i>	<b>n</b>	<b>y</b>	<b>Total</b>	<b>%</b>
<i>a</i>	42	13	55	23.64%
<i>e</i>	26	6	32	18.75%
<i>i</i>	96	7	103	6.80%
<i>o</i>	32	16	48	33.33%
<i>u</i>	20	0	20	0.00%

The proportions found in Quire III share some similarities with the ones found in Quire II but less so with Quire I. Here we also have about 70% of non-root *ē*-vowels written with a double vowel. The proportions for *i* is similar here as well, whereas the proportions for double vowel writing for *o* are somewhat higher.

**Table 5.1-9*****Quire IV: Non-root***

<i>Vowel</i>	<b>n</b>	<b>y</b>	<b>Total</b>	<b>%</b>
<i>a</i>	1	1	2	50.00%
<i>e</i>	2	4	6	66.67%
<i>i</i>	3	0	3	0.00%
<i>o</i>	1	0	1	0.00%
<i>u</i>	1	0	1	0.00%

***Quire IV: Root***

<i>Vowel</i>	<b>n</b>	<b>y</b>	<b>Total</b>	<b>%</b>
<i>a</i>	3	2	5	40.00%
<i>e</i>	0	0	0	0.00%
<i>i</i>	11	0	11	0.00%
<i>o</i>	1	0	1	0.00%
<i>u</i>	1	0	1	20.00%

There is only one page in Quire IV that Scribe 1 is responsible for, as well as one line on page 50 which is otherwise written by Scribe 2. Therefore the number of examples is very low so the proportional comparison is impossible.

These tables represent the first section of the manuscript which is all written by Scribe 1 (pages 8-48). After a section worked on by Scribe 2 and Scribe 3 this scribe returns to the manuscript in Quire VI.

**Table 5.1-10*****Quire VI: Non-root***

<i>Vowel</i>	<b>n</b>	<b>y</b>	<b>Total</b>	<b>%</b>
<i>a</i>	4	0	4	0.00%
<i>e</i>	16	20	36	55.50%
<i>i</i>	23	5	28	17.86%
<i>o</i>	11	11	22	50.00%
<i>u</i>	9	2	11	18.18%

***Quire VI: Root***

<i>Vowel</i>	<b>n</b>	<b>y</b>	<b>Total</b>	<b>%</b>
<i>a</i>	10	1	11	9.09%
<i>e</i>	7	0	7	0.00%
<i>i</i>	41	4	45	8.89%
<i>o</i>	11	1	12	8.33%
<i>u</i>	13	0	13	0.00%

The proportions for non-root vowels here are along the same lines as we find in the previous quires written by Scribe 1. The proportion of root vowels is much lower than before.

In general for these first four quires we can say about non-root vowels that the proportions of double vowel writing of *e*, *i* and *o* are higher than the proportions of *a* and *u*. The proportions for double vowel writing of *e* tend to be higher than the other two with the exception of Quire I. The root vowel proportions do not show any clear tendencies but the examples tend to be fewer so the numbers show greater fluctuations.

There is significant difference between these quires already discussed and the remaining three quires worked on by Scribe 1. The proportional numbers are shown in the following tables:

**Table 5.1-11*****Quire VII: Non-root***

<i>Vowel</i>	<b>n</b>	<b>y</b>	<b>Total</b>	<b>%</b>
<i>a</i>	2	0	2	0.00%
<i>e</i>	38	0	38	0.00%
<i>i</i>	23	10	33	30.30%
<i>o</i>	24	0	24	0.00%
<i>u</i>	14	0	14	0.00%

***Quire VII: Root***

<i>Vowel</i>	<b>n</b>	<b>y</b>	<b>Total</b>	<b>%</b>
<i>a</i>	24	2	26	7.69%
<i>e</i>	5	0	5	0.00%
<i>i</i>	32	0	32	0.00%
<i>o</i>	12	1	13	7.69%
<i>u</i>	8	0	8	0.00%

**Table 5.1-12*****Quire IX: Non-root***

<i>Vowel</i>	<b>n</b>	<b>y</b>	<b>Total</b>	<b>%</b>
<i>a</i>	4	0	4	0.00%
<i>e</i>	14	0	14	0.00%
<i>i</i>	14	7	21	33.33%
<i>o</i>	13	0	13	0.00%
<i>u</i>	4	0	4	0.00%

***Quire IX: Root***

<i>Vowel</i>	<b>n</b>	<b>y</b>	<b>Total</b>	<b>%</b>
<i>a</i>	9	0	9	0.00%
<i>e</i>	12	0	12	0.00%
<i>i</i>	19	0	19	0.00%
<i>o</i>	9	0	9	0.00%
<i>u</i>	6	0	6	0.00%

**Table 5.1-13*****Quire X: Non-root***

<i>Vowel</i>	<b>n</b>	<b>y</b>	<b>Total</b>	<b>%</b>
<i>a</i>	9	0	9	0.00%
<i>e</i>	21	3	24	12.50%
<i>i</i>	19	5	24	20.83%
<i>o</i>	22	0	22	0.00%
<i>u</i>	2	0	2	0.00%

***Quire X: Root***

<i>Vowel</i>	<b>n</b>	<b>y</b>	<b>Total</b>	<b>%</b>
<i>a</i>	13	0	13	0.00%
<i>e</i>	1	0	1	0.00%
<i>i</i>	13	1	14	7.14%
<i>o</i>	6	0	6	0.00%
<i>u</i>	3	0	3	0.00%

In Quires VII, IX and X long vowels are much more sparsely indicated than in previous quires by Scribe 1. There are only four examples of long root vowels written with double vowel spelling. The only non-root examples that have double vowel writing are certain forms with  $\bar{e}$  and  $\bar{i}$ . These forms are 3<sup>rd</sup> person singular optative of  $\bar{e}$ -verbs and  $\bar{i}n$ -feminine nouns. The use of double vowel writing in these later quires of Scribe 1 follows the same tendencies we observed for the parts written by Scribe 2 and Scribe 3.

**5.1.3 Conclusions**

When it comes to the division of the manuscript between scribes and quires we can divide the manuscript up into two parts with regards to indication of long vowels. In one part we have many instances of double writing both in root and unaccented syllables. In another part we have hardly any instances of double writing in root syllables and only a limited number of  $\bar{e}$  and  $\bar{i}$  cases in unaccented syllables. The first part covers the first three quires as well as Quire VI of Scribe 1 and possibly also his

small portion of Quire IV. The other part includes the later contributions of Scribe 1 as well as the contribution of Scribe 2 and Scribe 3.

A possible interpretation of these distributional facts is that the long vowel writing is not dictated by the scribes' own phonological system but the spelling of the scribes/glossators of the manuscript they are working from, the source manuscript of Cod. Sang. 916. At least this has to be so in the case of Scribe 1. The data shows that this source manuscript was also divided into quires or sections that were worked on by different scribes. At least it is clear that there was difference in how long vowels were represented in the text of the source manuscript corresponding to Quires I, II and III and text corresponding to Quires VII, IX and X.

How the text of the source manuscript was otherwise precisely divided between its scribes is not immediately obvious. The numbers for the proportions of the double vowel writing did not give clear indications in this regard. One thing though that was particularly noteworthy was the relatively low occurrences of double writing for  $\bar{e}$  in Quire I vs. Quire II and III. This could suggest that there was a different scribe/glossator responsible for the text of the source manuscript that corresponds to Quire I than the other part.

#### *5.1.4 Reevaluating hypotheses (2a), (2b) and (3)*

In section 4.8.1, we set forth a set of hypotheses regarding the use of double vowel writing in the manuscript. We have already revised the first of these. Furthermore we have illustrated how hypothesis (2) does not hold. We now are equipped with the tools to evaluate the next three hypotheses:

*(2a) The double writing of Scribe 1 is inconsistent and only found in particular sections and therefore must originate in the orthography of the source manuscript.*

(2b) *The lack of double writing of Scribe 2 and Scribe 3 is consistent and must be attributed to the lack of detail in their copying.*

(3) *The division of sections of text that do show double vowel writing and those that do not correlates with the division between quires.*

Our observations in the previous subsection indicate that indeed the contribution of Scribe 1 is inconsistent. The early quires he works on show double writing and the later do not. The hypothesis that the double vowel writing originates in the source manuscript seems to hold, otherwise it would be hard to account for why Scribe 1 suddenly changes his orthographical habits.

If the double vowel writing stems from the source manuscript we have to conclude that this manuscript as well did not have a consistent orthography. Let's assume that the division between quires in this source manuscript was similar to the division in Cod. Sang. 916. We can then assume the following: Quires I, II, III and VI show double vowel writing and Quire V, VII, VIII, IX and X do not show double vowel writing, with the exception of *īn*-nouns. The problematic quires are Quire IV and VI. What was the status of these quires in the source manuscript? In light of our conclusion that Scribe 1 is faithfully copying the orthography of the source manuscript, we must assume that the corresponding quires in the source manuscript did show double vowel writing also. The logical conclusion must be that the portions of Quire IV and VI that were worked on by Scribe 2 and Scribe 3 also had double vowel writing that these two scribes did not render in their copying.

It is noticeable that the orthographical peculiarities of the sections by Scribe 2 and Scribe 3 are the same as the ones observed in the later contribution by Scribe 1. If they originate from Scribe 2 and 3 in Quire IV and VI, might we then not also assume that they originate from Scribe 1 in his later sections? The answer to that is no. It could be that the orthographical principles Scribe 2 and 3 follow, i.e. not showing vowel length

by double vowel in non-root syllables except when occasionally writing final  $\bar{i}$  was also followed by some of the copyists responsible for the source manuscript.

Our conclusion is that the hypotheses (2a), (2b) and (3) hold and that we have now identified the factors involved when the manuscript was copied from its source. We have accounted for the distribution of double letter writing and the contribution of each of the three scribes.

### 5.1.5 Root vowels

The fourth hypothesis set forth in section 4.8.1 presupposes that due to fundamental difference between accented and unaccented syllables there should be a distinction between the root vowels and non-root vowels when it comes to consistency of double vowel writing of long vowels. This is clear when we look at double vowel writing in other OHG texts, where it is almost exclusively limited to root syllables (cf. 4.6 above). The hypothesis was stated as: (4) *There is a difference between non-root and root syllables with regard to stress which is reflected in the double vowel writing in the manuscript.* We notice that double vowel writing of root vowels is found in all parts of the manuscript, but is almost exclusively concentrated in certain quires which Scribe 1 is responsible for. Table 5.1-14 below shows the distribution between single and double writing of root vowels in the manuscript and the proportions of double vowel writings as percentages of the whole.

**Table 5.1-14**

All					Dbl.								
Vowel	1	2	3	Total	Vowel	1		2		3		Total	
$\bar{a}$	193	14	100	307	$\bar{a}$	24	12.44%	1	7.14%	1	1.00%	26	8.47%
$\bar{e}$	113	3	60	176	$\bar{e}$	21	18.58%		0.00%		0.00%	20	11.36%
$\bar{i}$	364	12	257	633	$\bar{i}$	20	5.49%		0.00%	4	1.56%	24	3.79%
$\bar{o}$	152	9	97	258	$\bar{o}$	34	22.37%		0.00%	1	1.03%	35	13.56%
$\bar{u}$	94	7	36	137	$\bar{u}$	1	1.06%		0.00%		0.00%	1	0.73%
Total	916	45	550	1511	Total	99	10.81%	1	2.22%	6	1.09%	106	7.02%

We notice that the proportion of double vowels is much higher for Scribe 1 than for any other scribe. This is in line with our previous conclusion that double vowel writing is limited to certain sections by Scribe 1.

**Table 5.1-15**

All					Dbl.								
V.	1	2	3	Tot.	V.	1		2		3		Tot.	
<i>ā</i>	62	2	40	104	<i>ā</i>	5	8.06%		0.00%	0	0.00%	5	4.81%
<i>ē</i>	357	26	220	603	<i>ē</i>	172	48.18%		0.00%	14	6.36%	180	29.85%
<i>ī</i>	326	18	242	586	<i>ī</i>	81	24.85%	1	5.56%	25	10.33%	106	18.09%
<i>ō</i>	244	18	188	450	<i>ō</i>	65	26.64%	1	5.56%	0	0.00%	66	14.67%
<i>ū</i>	77	9	79	165	<i>ū</i>	4	5.19%		0.00%		0.00%	4	2.42%
Tot.	1066	73	769	1908	Tot.	321	30.11%	2	2.74%	39	5.07%	361	18.92%

The comparison of the numbers, which show the proportions of double writing vs. single writing, illustrates the fundamental difference between non-root and root vowels. Our conclusion is that hypothesis (4) is valid. As a result it is clear that comparison between these two types regarding spelling of long vowels is not likely to render any useful results that might shed further light on the 1<sup>st</sup> person plural ending in *-mēs*. We will therefore not analyze the root vowel examples any further, but concentrate our efforts on the non-root vowels.

In the next section we will look at the results from the database analysis with regard to the ending *-mēs* and view them in light of the distribution calculations. It is clear that the main focus of our investigation will remain on the part of the contribution of Scribe 1 that does show consistent double writing. In our survey of the contribution of Scribe 1 we noticed that the proportions between single and double vowel were not the same for all of the quires. This might indicate that there was some variation in spelling of the source manuscript that this scribe was copying. In order to explore this further we need to take a closer look at the parts of speech that contain long vowels to see if

there is any difference in the denotation of long vowels between forms that belong to different grammatical categories.

## 5.2 *-mees* or *-mes*?

We can now start to evaluate the hypotheses in 4.8.1 that are specific to the 1<sup>st</sup> person plural ending *-mēs*. The first one of those is: (5) *The distributional pattern of 1<sup>st</sup> person plural ending -mēs is different from comparable categories with ē*. As we have mentioned before our first impression of the 1<sup>st</sup> person plural ending in Cod. Sang. 916 actually revealed that there were more instances of the ending written *-mes* with what appears to be a short vowel rather than *-mees* which is also attested widely in the manuscript. The distribution patterns already uncovered suggests that the use of these variants should fall along the lines of the general use of double writing of unaccented syllables. We would expect the relevant quires of Scribe 1 to show the spelling *-mees* whereas the variant *-mes* should be the only one found in the parts written by Scribe 2 and Scribe 3 as well as the later quires of Scribe 1.

We will now look at all the instances of 1<sup>st</sup> person plural found in Cod. Sang. 916. There are 66 first person plural verb forms in the text. Of those there are three forms with the short variant ending, i.e. *-m* and further four where the ending is abbreviated. Of the longer forms we find 20 written *-mees* and 38 written *-mes*. In addition we find one form in *-mez*, namely *kasezamez* (56.01) a scribal error for *kasezames* discussed in 4.8.3. All in all the proportions are 39 to 20 so about 2:1 in favor of the short ending. We find the *mees*-forms limited to first 46 pages of the manuscript, which is the first contribution of Scribe I. The distribution of the forms is illustrated in the tables below.

Table 5.2-1 shows the forms found in the first three quires. There are no examples of 1<sup>st</sup> person plural ending *-mēs* in the contribution of Scribe 1 in Quire IV and VI.



**Table 5.2-1**

	Prefix	Word	Place		P.o.s	Forms	Mood	Sc.	Qu.
n		pittames	8.06		verb	1st pl. pres.	opt.	1	I
n		uuellemes	8.09		verb	1st pl. pres.	ind.	1	I
n		pirumes	8.11		verb	1st pl. pres.	ind.	1	I
n		uuanneemes	9.02		verb	1st pl. pres.	ind.	1	I
n	er	stantames	12.05		verb	1st pl. pres.	opt.	1	I
n		horrames	12.10		verb	1st pl. pres.	opt.	1	I
n		kangames	14.06		verb	1st pl. pres.	ind. or opt.	1	I
n		uuellemes	14.09		verb	1st pl. pres.	ind.	1	I
y		frahemees	14.11		verb	1st pl. pres.	imp.	1	I
y		hoorremees	14.15		verb	1st pl. pres.	imp.	1	I
n	int	frahetomes	17.02		verb	1st pl. perf.	ind.	1	II
y	ke	hortomees	17.03		verb	1st pl. perf.	ind.	1	II
y	er	fullemees	17.04		verb	1st pl. pres.	opt.	1	II
n		pirumes	17.05		verb	1st pl. pres.	ind.	1	II
y	ke	sezzamees	19.13		verb	1st pl. pres.	imp.	1	II
y		qhuememees	19.14		verb	1st pl. pres.	imp.	1	II
y		haremees	20.04		verb	1st pl. pres.	ind.	1	II
n		pirumes	23.04		verb	1st pl. pres.	ind.	1	II
n		tragames	23.05		verb	1st pl. pres.	ind.	1	II
n		pirumes	23.08		verb	1st pl. pres.	ind.	1	II
y	zua	manomees	24.09		verb	1st pl. pres.	ind.	1	II
y		qhuedamees	28.03		verb	1st pl. pres.	ind.	1	II
y		tuamees	37.09		verb	1st pl. pres.	imp.	1	III
y	nidar	remees	38.14		verb	1st pl. pres.	ind.	1	III
y	far	lazzamees	38.16		verb	1st pl. pres.	ind.	1	III
y		vvellemees	39.13		verb	1st pl. pres.	ind.	1	III
y		vvellemees	39.16		verb	1st pl. pres.	ind.	1	III
y		qhuuedamees	40.10		verb	1st pl. pres.	ind.	1	III
y		pittamees	42.12		verb	1st pl. pres.	ind.	1	III
n	pi	porakemes	42.16		verb	1st pl. pres.	ind.	1	III
y	pi	porakemees	43.02		verb	1st pl. pres.	ind.	1	III
y	ke	laubpamees	43.07		verb	1st pl. pres.	ind.	1	III
y		pirumees	46.03		verb	1st pl. pres.	ind.	1	III
y	ubar	vvinnamees	46.07		verb	1st pl. pres.	ind.	1	III

As we can see the distribution of forms is different between quires. In Quire I we have ten examples. Eight are spelled *-mes* and two are spelled *-mees*. In Quire II we have twelve instances of this ending; five are spelled with a single vowel and seven are spelled with a double vowel. Quire III shows a large majority of double vowel spelling. Here we have twelve examples; eleven with double vowel and only one with a single vowel.

The distributional facts are quite striking. We find especially noteworthy the proportions of the forms in Quire I where we only have two examples of the double vowel spelling. We had previously found out that the proportions of non-root *ē* were much lower in the Quire I than in subsequent quires. It is therefore not clear whether this low proportion of double vowel writing in the verb ending is reflected in other categories as well.

For the sake of completeness we will consider the rest of the 1<sup>st</sup> person plural forms in *-mes* found in the later sections of the manuscript.

**Table 5.2-2**

	Prefix	Word	Place		P.o.s	Forms	Mood	Sc.	Qu.
n	ka	sezamez	56.01	*	verb	1st pl. pres.	ind.	3	IV
n		qhuatumes	56.04		verb	1st pl. pres.	ind.	3	IV
n	far	lazzames	60.05		verb	1st pl. pres.	ind.	3	IV
n		qhuatumes	60.11		verb	1st pl. pres.	ind.	3	IV
n	<b>duruhan</b>	pintames	62.02		verb	1st pl. pres.	ind. or opt.	3	IV
n		rahhomes	62.08		verb	1st pl. pres.	ind. or opt.	3	IV
n	ki	saztomes	62.14		verb	1st pl. perf.	ind.	3	IV
n	ka	sehames	62.15		verb	1st pl. pres.	ind.	3	IV
n		lesames	68.16		verb	1st pl. pres.	ind.	3	V
n	<b>duruhin</b>	pintames	69.01		verb	1st pl. pres.	ind. or opt.	3	V
n	ki	laubames	69.03		verb	1st pl. pres.	ind.	3	V
n		lesames	96.03		verb	1st pl. pres.	ind.	1	VII
n	ke	henkames	96.07		verb	1st pl. pres.	ind.	1	VII
n		qhvuédames	99.11		verb	1st pl. pres.	ind.	1	VII

**Table 5.2-2 (continued)**

n		vvellemes	101.06		verb	1st pl. pres.	ind.	1	VII
n		qhvatumes	102.10		verb	1st pl. pres.	ind.	1	VII
n	ka	laubames	108.09		verb	1st pl. pres.	ind.	3	VII
n		spanames	112.11		verb	1st pl. pres.	ind.	3	VIII
n		auhchomes	113.02		verb	1st pl. pres.	ind. or opt.	3	VIII
n		kebames	113.02		verb	1st pl. pres.	ind.	3	VIII
n		chvatumes	119.06		verb	1st pl. pres.	ind.	3	VIII
n		lirnetomes	131.17		verb	1st pl. perf.	ind.	3	IX
n	foraki	suannemes	146.10		verb	1st pl. pres.	ind.	1	X
n	ki	saztomes	146.17		verb	1st pl. perf.	ind.	1	X

All the examples display a single spelling of the vowel of the ending as we would expect in light of the distributional facts already pointed out.

It is clear we have to take a closer look at Quire I. The lack of double vowel writing we observe in the verb ending does not indicate a general trend as we otherwise find many examples of *ee* all over the first quire and also of double writing of other long vowels. The tentative conclusion reached in section 5.1.3 above was that the indication of length with double vowels originates from the source manuscript. Therefore it is apparent that the scribe responsible for the source text of Quire I indicated length.

We can consider this distributional pattern of the verb ending further confirmation of this conclusion and an indication of the situation in the source text. As we notice the two examples of *-mees* occur in the last part of Quire I and they occur close together with no single vowel forms between them. We might consider the hypothesis that in the source manuscript text that corresponds to the text found on page 14 there was change of scribes/glossators. The implication would be that one of those indicated the length in the ending, the other one did not. The scribe/glossator responsible for the first part of Quire I wrote a single *e* in the verb endings because the ending had a short *e* rather than a long *ē* which he otherwise represented as *ee*.

Another possibility we can consider is whether we have a distinction in this quire between present and optative forms vs. imperative (adhortative) forms. Both of the examples from this quire, where we find double vowel writing of the ending, i.e. *frahemees* 14.11 and *hoorremees* 14.15, are imperative. There are further four examples of imperative forms in the subsequent sections where Scribe 1 uses double vowel spelling to indicate length. All are spelled with double vowel in the ending.

This suggests that there possibly was a difference in Quire I between the verb endings and other categories where we expect an  $\bar{e}$  in a non-root syllable. We need to take a careful look at the data for those other  $\bar{e}$ -categories to see whether their distributional pattern might shed some further light on the matter. Are there other categories where the  $\bar{e}$ -vowels are not written long where we would expect them to be? How does the distribution of single vs. double writing other categories compare to the pattern observed for the verbal endings.

### 5.3 Other categories with $\bar{e}$

The observations in section 5.2. indicated that hypothesis (5) might have some merit. To see if this hypothesis holds it is necessary to compare the distributional pattern of the verb ending to the distributional pattern of other categories which had a long vowel  $\bar{e}$  in unaccented syllables.

The words in the database are labeled with regard to grammatical category. There are several categories we assume contained a long  $\bar{e}$  and thus would receive double vowel spelling in the relevant parts of the manuscript. The following grammatical labels were applied to the word forms containing  $\bar{e}$  in the database:  $\bar{e}$ -verbs, present optatives,  $\bar{e}$ -verb optatives,  $\bar{e}m$ -endings and  $\bar{e}r$ -endings. The first three groups require some additional explanation. The reason for the distinction made here is that there is some overlap between categories. A verb form can have a *ee* spelling without it being clear

whether the reason is the  $\bar{e}$  stem vowel of the third class of weak verbs or the optative morphology. Therefore it is necessary to make this three way distinction. Only clear examples are discussed under the corresponding headings, i.e. under “ $\bar{e}$ -verbs” we discuss  $\bar{e}$ -verb forms that are clearly not optatives and under “Present Optatives” we discuss optative formations of non  $\bar{e}$ -verbs. The remaining forms are discussed under “ $\bar{e}$ -verb Optatives”.

The first step in our comparison is simply to contrast the instances of single and double vowel writing for each of the  $\bar{e}$ -vowel categories. We want to figure out whether the distribution of the single and double vowel variants of the 1<sup>st</sup> person plural ending is in anyway different or similar to other  $\bar{e}$ -categories. The categories we can use for comparison are the ones with at least as many examples as the 1<sup>st</sup> person plural. Three categories can be utilized for comparison: the  $\bar{e}$ -verbs, the adjective ending  $-\bar{e}m$  and the adjective ending  $-\bar{e}r$ . The remaining two  $\bar{e}$ -vowel categories, “Present Optatives” and “ $\bar{e}$ -verb Optatives” do not fulfill this criterion. The tables below show the numbers for each of the quires where we have double vowel writing, starting with the 1<sup>st</sup> person plural.

**Table 5.3-1**

1 <sup>st</sup> person plural ending $-\bar{m}\bar{e}s$					
	Frequency				Total
Position	ee	%	e	%	ee & e
<i>Quire I</i>	2	20.00%	8	80.00%	10
<i>Quire II</i>	7	58.33%	5	41.67%	12
<i>Quire III</i>	11	91.67%	1	8.33%	12
<i>Quire IV</i>	0	0.00%	0	0.00%	0
<i>Quire VI</i>	0	0.00%	0	0.00%	0

Table 5.3-2

<b><math>\bar{e}</math>-verbs</b>					
	<b>Frequency</b>				<b>Total</b>
<b>Position</b>	<b>ee</b>	<b>%</b>	<b>e</b>	<b>%</b>	<b>ee &amp; e</b>
<i>Quire I</i>	2	20.00%	8	80.00%	10
<i>Quire II</i>	12	57.14%	9	42.86%	21
<i>Quire III</i>	16	51.61%	15	48.39%	31
<i>Quire IV</i>	2	100.00%	0	0.00%	2
<i>Quire VI</i>	3	60.00%	2	40.00%	5

Table 5.3-3

<b>Dative plural adjectival ending -<math>\bar{e}m</math></b>					
	<b>Frequency</b>				<b>Total</b>
<b>Position</b>	<b>ee</b>	<b>%</b>	<b>e</b>	<b>%</b>	<b>ee &amp; e</b>
<i>Quire I</i>	7	58.33%	5	41.67%	12
<i>Quire II</i>	36	81.82%	8	18.18%	44
<i>Quire III</i>	24	96.00%	1	4.00%	25
<i>Quire IV</i>	0	100.00%	1	0.00%	1
<i>Quire VI</i>	6	75.00%	2	25.00%	8

Table 5.3-4

<b>Nom. sg. masc. adjectival ending -<math>\bar{e}r</math></b>					
	<b>Frequency</b>				<b>Total</b>
<b>Position</b>	<b>ee</b>	<b>%</b>	<b>e</b>	<b>%</b>	<b>ee &amp; e</b>
<i>Quire I</i>	0	0.00%	7	100.00%	7
<i>Quire II</i>	6	37.50%	10	62.50%	16
<i>Quire III</i>	5	50.00%	5	50.00%	9
<i>Quire IV</i>	0	0.00%	1	100.00%	1
<i>Quire VI</i>	7	41.18%	10	58.82%	17

In our survey of the  $m\bar{e}s$ -forms we observed that the frequency of double spelling was different in Quire I than in subsequent quires. This seems to be a general tendency of all the categories observed here. We notice that the double vowel writing is significantly less frequent in Quire I than in any other quire. We find this especially clear when looking at the numbers for  $\bar{e}$ -verbs and the nom. sg. adj. ending - $\bar{e}r$ . Here the proportions for Quire I are much lower than for the subsequent quires. There is a similar tendency observed for the dat. pl. adj. ending - $\bar{e}m$ , but there is still a significant

proportion of those indicated with a double spelling in Quire I. Overall the vowel length in this ending is more robustly indicated than in the others.

The difference between the *ēm*-endings and the other categories could be indicative of some fundamental difference between the two. There is no similar indication of a distributional difference between the *mēs*-endings and any other category. Looking at these numbers it seems that hypothesis (5) does not hold. Of course we can say that the distributional pattern of the *mēs*-ending is different from the distributional pattern of any other category, but the same can be said about each of the other categories. Before we give up on hypothesis (5), we need to look closer at the numbers in the tables and what they stand for.

We do not expect the spelling of the manuscript to be 100% consistent as there is always some irregularity in the orthography of medieval manuscript texts. However we can perhaps identify some phonological or graphical features that might explain why exactly some forms do not conform to the expected spelling. This will help us to better understand the different distributional patterns observed for each of the categories. If this is possible and plausible we can maintain our hypothesis about the uniqueness of the distributional pattern of the verb ending vs. other categories.

### 5.3.1 *ē*-verbs

All the Germanic languages have preserved a class of weak verbs which is usually referred to as Class III verbs or *ē*-verbs. This class seems to reflect an alternation between *a* and *ē* (older *ai*) as stem vowels. Individual Germanic languages however show some significant variation in the conjugation of these verbs which has made it hard for scholars to reconstruct a Proto-Germanic pattern. As a result there are many conflicting theories regarding the origin of this verb class (cf. Bennett 1962, Jasanoff 1973).

The theory that best accounts for all the Germanic evidence is that the  $\bar{e}$  in this class of verbs somehow reflects PIE middle formant  $-ai$  which would have been recategorized and acquired regular active verb endings, i.e. the Germanic reflex of PIE medio-passive  $*konkoi$ ,  $*hangai$  is remade as  $*hangaip$  (cf. Jasanoff 1973). Many other explanations though have been advanced in the literature throughout the years.

In Old High German these verbs have the following regular conjugation pattern. There is no longer any evidence of the alternation between  $a$  and  $\bar{e}$ . Instead the  $\bar{e}$  has been generalized as stem vowel. A typical common verb of this class is the verb ‘to have’ which in OHG has the stem  $hab\bar{e}$ -.

**Table 5.3-5**

Category	Form
<i>1sg.</i>	habēm
<i>3sg.</i>	habēt
<i>3pl.</i>	habēnt
<i>imp. 2sg.</i>	habe
<i>opt. 3sg.</i>	habe, habēe
<i>pret. 1 sg.</i>	habēta
<i>pres. ptc.</i>	habēnti
<i>past ptc.</i>	habēt

The elimination of the alternating stem in OHG is analogical. It seems that the prevalence of  $\bar{o}$  as the stem vowel of Class II weak verbs provided the source of analogical remodeling of Class III verbs in OHG with the extension of  $\bar{e}$  to 1<sup>st</sup> singular present indicative and the present optative (Cowgill 1959:11).

Special attention should be given to the longer forms of the third person singular present optative forms. Jasanoff (1973) assumes they are a recent innovation as part of the analogical process which was inspired by the  $\bar{o}$ -verbs (cf. Cowgill loc.cit.). This optative formation is discussed in more detail in section 5.3.3.

There are a few caveats we need to take into account. One is that there seems to be a number of Class II verbs that are found in Class III formations and vice versa. In the



Otfrid text we find examples of both; e.g. *zilōn* appearing as a by-form of the common *zilēn* ‘strive’ and e.g. *klagēn* as a by-form of the more common *klagōn* ‘lament’. The tendency in general seems to have some dialectal dimension. In Franconian original Class III verbs have a tendency to move to Class II but in Upper German the opposite happens, i.e. original Class II verbs move to Class III (Braune/Reiffenstein 2004:303). Although the characteristic stem vowel of this class is believed to have been an *ē* in all forms, the evidence for the length in some of the texts is not unequivocal. In the Boethius translation of Notker the length is consistently only denoted in the present indicative, imperative and infinitive. In other forms we find the spelling of the expected *ē* to be regularly *e*, i.e. without a circumflex whereas long *ē* is otherwise denoted as *ê* (Braune/Reiffenstein 2004:302).

All these facts need to be taken into consideration when we look at the evidence from Cod. Sang. 916.

**Table 5.3-6**

	Prefix	Word	Place		P.o.s	Forms	Mood	Sc.	Qu.
n		lirrente	9.13		part. pres.	nom. pl.	masc.	1	I
n	duruh	uonente	9.15		part. pres.	nom. pl.	masc.	1	I
n		uonet	10.11	*	verb	3rd sg. pres.	ind.	1	I
n		hlose	10.14		verb	2nd sg. pres.	imp.	1	I
n		folgen	12.04		verb	infinitive		1	I
y		hoorreet	12.13		verb	2nd pl. pres.	ind.	1	I
n		haret	13.04		verb	3rd sg. pres.	ind.	1	I
n		haben	13.08		verb	infinitive		1	I
n	ki	folge	13.13		verb	2nd sg. pres	imp.	1	I
y		frahemees	14.11		verb	1st pl. pres.	imp.	1	I
y		cuatlihheet	16.02		verb	3rd sg. pres.	ind.	1	II
n	int	frahetomes	17.02		verb	1st pl. pret.	ind.	1	II
n		lirneton	17.16		verb	3rd pl. pret.	ind.	1	II
y		suuigeen	19.11		verb	infinitive		1	II
n		haremees	20.04		verb	1st pl. pres.	ind.	1	II
n	ana	hljnentj	20.14		part. pres.			1	II
n	far	manenti	21.07		part. pres.			1	II

**Table 5.3-6 (continued)**

n	for	sagenti	22.03		part. pres.			1	II
n		fietos	22.08		verb	2nd sg. pret.	ind.	1	II
n	far	manente	24.08		part. pres.	acc. pl.	masc.	1	II
y	ke	doleet	26.02		pp.			1	II
y		habeen	27.02		verb	infinitive		1	II
y		skirmeen	28.07		verb	infinitive		1	II
y		hangeet	28.08		verb	3rd sg. pres.	ind.	1	II
y		hoorreen	28.11		verb	infinitive		1	II
y	ke	folgeet	28.14		pp.			1	II
y	ke	folgeet	28.17		pp.			1	II
y	er	paldeet	29.02		verb	3rd sg. pres.	ind.	1	II
n		eeren	30.03		verb	infinitive		1	II
y	ke	folgeet	30.06		pp.			1	II
y		habeen	30.15		verb	infinitive		1	II
y		doleen	31.06		verb	infinitive		1	III
y		habeen	31.17		verb	infinitive		1	III
y	ana	hljneen	32.10		verb	infinitive		1	III
n		fien	32.15		verb	infinitive		1	III
n		fien	33.06		verb	infinitive		1	III
y		habeen	33.07		verb	infinitive		1	III
y		ereen	33.09		verb	infinitive		1	III
y	ke	doleet	34.17		pp.			1	III
n	ke	folget	35.09		pp.			1	III
y	ana	hlineet	35.15		verb	3rd sg. pres.	ind.	1	III
n		lebente	36.01		part. pres.	nom. pl.	masc.	1	III
n		lebente	36.19		part. pres.	nom. pl.	masc.	1	III
y	ke	folgeet	37.05		pp.			1	III
n	er	tumbeta	37.12		verb	1st sg. pret.	ind.	1	III
n		suuiketa	37.13		verb	1st sg. pret.	ind.	1	III
y		suuigeen	37.15		verb	infinitive		1	III
y		suuigeen	38.07		verb	infinitive		1	III
y		hareet	38.17		verb	3rd sg. pres.	ind.	1	III
y	pi	porageen	39.04		verb	infinitive		1	III
n	far	manente	41.02		part. pres.	nom. pl.	masc.	1	III
n	pi	porakemes	42.16		verb	1st pers. pl. pres	ind.	1	III
n	pi	porakemees	43.02		verb	1st pers. pl. pres	ind.	1	III
n	pi	porgenne	43.09		verb	inf. dat.		1	III
y		porgeenne	44.03		verb	inf. dat.		1	III

**Table 5.3-6 (continued)**

n		suuigeta	44.11		verb	1st sg. pret.	ind.	1	III
n		suuigentun	45.11		part. pres.	dat. sg.	fem.	1	III
n	far	dolentj	45.13		part. pres.			1	III
y	Int	habee	45.17	*	verb	2nd sg. pres	imp.	1	III
y	far	doleen	46.01		verb	infinitive		1	III
n	ke	folget	46.05		pp.			1	III
y	ke	folgeet	46.14		pp.			1	III
y	far	doleent	47.05		verb	3rd pl. pres.	ind.	1	IV
y	far	doleent	47.19		verb	3rd pl. pres.	ind.	1	IV
y		haben	80.09		verb	infinitive		1	VI
n	far	manento	81.11	*	part. pres.	nom. sg.	masc	1	VI
y	ke	arneet	83.04		pp.			1	VI
n	vntar	folkentj	88.17		part. pres.			1	VI
y	ke	doleet	89.18		pp.			1	VI

There are 69 examples of *ē*-verbs in those parts of the manuscript where we would expect double writing of vowels to occur. Of those there are 35 where the vowel is actually written double. We have one further example of double writing from Quire VI in the contribution of Scribe 3. There is a clear distinction between grammatical categories and the use of the double writing. This distinction overlaps with the observation, mentioned above that overwhelming majority of medial syllables lacks length distinction.

When we look at the different parts of speech we see that in some forms the vowel is written double almost all the time and in others the vowel is never written double. The clearest distinction is found in the participles. We have 24 examples of either present or preterite participles. As we can see in Table 5.3-6, nine out of eleven examples of the preterite participle have double vowel spelling. On the other hand zero out of 13 examples of the present participle show a double writing of the stem vowel. The main difference between these categories is the position of the syllable where the long vowel is found. In the preterite participles long vowel occurs in final position. In the

present participle the vowel is always in medial position. Perhaps those two examples of preterite participle which show a single vowel spelling can be explained as influenced by the spelling of present participles.

Other categories are overwhelmingly one or the other, at least those where we have more than just a handful of examples. The largest category is the infinitive forms of which we have 22 examples. Two of those examples are inflected infinitives in the dative form and each display a different vowel writing variation. One of those shows a medial syllable being written with double vowel spelling, so this is probably not a factor for these types of infinitives. The remaining 20 are regular infinitives. Of those, 15 have the double vowel spelling and five have single vowel spelling. These latter five cases are found in Table 5.3-7.

**Table 5.3-7**

		Word	Place		Forms	Mood	Scribe	Quire
n		folgen	12,04		verb	infinitive	1	I
n		haben	13,08		verb	infinitive	1	I
n		eeeren	30,03		verb	infinitive	1	II
n		fien	32,15		verb	infinitive	1	III
n		fien	33,06		verb	infinitive	1	III

Even though we don't expect the orthography of the text to be entirely consistent we don't expect it to be entirely random either. Here we should be on the lookout for phonological or graphical features that can be associated with forms that are spelled with a single vowel. It is likely that we can explain the two examples of *fien* from its reduced phonetic material. The spelling of a double vowel immediately after another vowel does not occur in the manuscript which might indicate a sound law operating in such environment. Perhaps this verb had a tendency to be contracted to a single syllable which might affect the robustness of the long  $\bar{e}$ .

It is possible that the lack of double writing in the form *eeren* is due to graphic reasons, i.e. forms like *eereen* would have been disliked and avoided due to the number of similar graphs. It is also possible that the long vowel in the initial syllable of the same quality as the stem vowel of the verb somehow influenced the latter and caused it to be reduced.

The remaining two exceptional forms *folgen* and *haben* are not explainable from any phonological or graphical reasons. It should be noted that both of the forms occur in Quire I which we observed had smaller proportions of double vowel writing than subsequent quires. The overwhelming tendency here then is the double spelling and three of the five single vowel examples can be accounted for through other means.

There are then 23 examples not accounted for that represent various inflected forms of the verb. There seems to be some tendency for certain variants to be preferred by certain forms but the scarcity of examples makes it hard to form any concrete judgment in this regard. However some tendencies can be observed.

We do have seven examples of 3<sup>rd</sup> person singular forms and five of those have double writing of the *e*-vowel. The two examples of 3<sup>rd</sup> plural present indicative forms both have double writing so perhaps we can claim that this category had a robust  $\bar{e}$ . The opposite is true for the first person plural indicative forms. Here we have three examples of present forms and one of a preterite form. All of those have a single spelling of the stem vowel of the verb, which occurs in a medial syllable. Same can be observed for the 1<sup>st</sup> person sg. preterite forms. Other forms are only represented by a single example.

The analysis of the forms gives a rather clear picture and the variation we find in the spelling could suggest an operation of a phonological rule. The forms which are disyllabic certainly had a robust  $\bar{e}$ -vowel. Forms that have more syllables such as present participle and 1<sup>st</sup> person singular and plural forms have  $\bar{e}$  occurring in medial

syllable and are thus written with a single vowel. The exceptions where we find double writing in medial syllables, such as *porgeenne* 44.03 can be explained as being analogically influenced by uninflected infinitives). The other type of exceptions, i.e. single writing of vowel in disyllabic forms is harder to account for by a particular rule.

### 5.3.2 Present Optatives

The origin and formation of the Germanic optative has already been addressed in section 2.3.3.5 and 2.3.3.7 above. The following table shows the PG reconstruction as well as the OHG reflex.

**Table 5.3-8**

<b>Sing.</b>	<b>PG</b>	<b>OHG</b>
<i>1<sup>st</sup></i>	*beraim/aiun	berē
<i>2<sup>nd</sup></i>	*beraiz/ais	berēs
<i>3<sup>rd</sup></i>	*berai	berē
<b>Plur.</b>		
<i>1<sup>st</sup></i>	*beraim(e)	berēm
<i>2<sup>nd</sup></i>	*beraið(e)	berēt
<i>3<sup>rd</sup></i>	*berain	berēn

One thing we immediately notice with regard to the optative forms in OHG is the fact that there seems to be a shortening in final open syllable in OHG. In 1<sup>st</sup> and 3<sup>rd</sup> sg. The ending is not *-ē* as we might expect but simply a short *-e*. This is usually said to be supported by the texts where we do find length denoted, including the Benedictine rule (Braune/Reiffenstein 2004:266). The examples of the 1<sup>st</sup> and the 3<sup>rd</sup> person singular forms have therefore been left out of the database. We can see the examples of other optative forms found in the relevant contributions of Scribe 1 in Table 5.3-9 below.

**Table 5.3-9**

	Prefix	Word	Place		P.o.s	Forms	Mood	Sc.	Qu.
n		fleohe	9.07		verb	2nd sg. pres.	opt.	1	I
n	teil	nemem	9.16		verb	1st pl. pres.	opt.	1	I
n		nemes	10.02		verb	2nd sg. pres.	opt.	1	I
n		huuarabes	11.01		verb	2nd sg. pres.	opt.	1	I
n	pi	kinnes	11.09		verb	2nd sg. pres.	opt.	1	I
n		pittes	11.11		verb	2nd sg. pres.	opt.	1	I
n		hoorres	13.07		verb	2nd sg. pres.	opt.	1	I
n		sprehhen	13.11		verb	3rd pl. pres.	opt.	1	I
y		tueet	13.14	*	verb	2nd pl. pres.	opt.	1	I
y	ki	nemmeet	13.16		verb	2nd pl. pres.	opt.	1	I
y	fram	kangeen	24.07	*	verb	3rd pl. pres.	opt.	1	II
y	pi	kirneen	24.11	*	verb	3rd pl. pres.	opt.	1	II
y		kebeen	28.04		verb	3rd pl. pres.	opt.	1	II
y		hoorreen	28.10		verb	3rd pl. pres.	opt.	1	II
n		hrivoes	29.13		verb	2nd sg. pres.	opt.	1	II
n		keroes	30.02		verb	2nd sg. pres.	opt.	1	II
y		kangees	43.14		verb	2nd sg. pres.	opt.	1	III
n		keben	46.18	*	verb	3rd pl. pres.	opt.	1	III
y		kebeen	47.01	*	verb	3rd pl. pres.	opt.	1	IV
y	far	laazzeen	47.02		verb	3rd pl. pres.	opt.	1	IV
n		suuerben	87.11		verb	3rd pl. pres.	opt.	1	VI
n		uuasken	87.14		verb	3rd pl. pres.	opt.	1	VI

There are 22 examples of optative forms with potential long vowel in the relevant parts of Scribe 1. Of those there are nine that are written with a double vowel. The distribution of the variants seems different between categories of forms and perhaps goes hand in hand with the division between quires.

Let's first look at the division between grammatical forms. In the singular we are only dealing with 2<sup>nd</sup> person forms and only one of them is written with a double vowel spelling. There is really no obvious explanation for this in terms of phonological

environment and the lack of forms makes it hard to detect any sound laws that might be operating here.

We then move on to the plural. The only example of the first person plural is written with a single vowel. There are two examples of a second person forms and both are written with a double vowel. Finally there are ten examples of 3<sup>rd</sup> person forms and six of those have double vowel spelling. Again it seems hard to account for the distribution by referring to sound laws.

If we look at the distribution in light of the division between quires the lines become somewhat clearer. Out of the nine examples of the 2<sup>nd</sup> person singular, six of the short vowel writing are from Quire I, two are from Quire II, and the one with the double vowel writing is from Quire III. The first person plural form with a single vowel spelling is also from Quire I. The 2<sup>nd</sup> person plural forms are also from Quire I but these are written with a long vowel. If vowel shortening was more prevalent in the language of the source of Quire I it did not affect the 2<sup>nd</sup> person plural forms. The 3<sup>rd</sup> person plural forms that show double writing are all from Quires II and IV. The single vowel forms are from Quires I, III and VI. The result is then that the use of double vowel in this particular category is consistent with the division of the manuscript in quires.

### 5.3.3 *ē-verb optatives*

Some of the forms in question are ambiguous as the long vowel in the verb form can be interpreted either as representing the stem vowel or representing the optative marker. In the database there are 27 examples of these potentially ambiguous forms. Most of them are 3<sup>rd</sup> person singular forms but also 1<sup>st</sup> person and 3<sup>rd</sup> person plural. We will start by taking a closer look at the latter two groups.



There are two examples of 1<sup>st</sup> person plural forms. Both are written with a double vowel.

**Table 5.3-10**

	Prefix	Word	Place		P.o.s	Forms	Mood	Sc.	Qu.
y	ke	arneem	9,17		verb	1st pl. pres.	opt.	1	I
y	ke	arneem	14,07		verb	1st pl. pres.	opt.	1	I

There are three examples of 3<sup>rd</sup> person plural forms. All are written with a double vowel.

**Table 5.3-11**

	Prefix	Word	Place		P.o.s	Forms	Mood	Sc.	Qu.
y	er	paldeen	28,06		verb	3rd pl. pres.	opt.	1	II
y	Int	habeen	88,07		verb	3rd pl. pres.	opt.	1	VI
y	ke	habeen	90,10		verb	3rd pl. pres.	opt.	1	VI

There are 22 examples of a third person singular optative ending in *-ee*. All of these appear to be formed from *ē*-verbs or verbs that commonly have *ē*-verb by-forms (see below). It is therefore likely that the double writing of *e* in these forms is the result of the stem vowel of the verb being long, rather than the optative suffix or ending (see footnote for possible exception). This is furthermore supported by the fact that the regular outcome of the 3<sup>rd</sup> sg. ending PG \* *-ai* in OHG is a short *-e* (cf. Braune/Reiffenstein 2004:266). Interestingly there are no examples of Class III verb forms ending in *-e* found in the text.

**Table 5.3-12**

	Pr	Word	Place	Sc.	Qu.
y		cuatlihhee	16.02	1	II
y		lebee	17.01	1	II
y		porakee	27.08	1	II
y	er	paldee	28.18	1	II
y		zilee	33.05	1	III
y		muadee	45.13	1	III
y		habee	82.16	1	VI
y	er	paldee	82.18	1	VI
y		zilee	143.10	1	X
y	ke	mezljhhee	143.18	1	X
y	ke	mezljhhee	144.07	1	X

	Pr	Word	Place	Sc.	Qu.
y	er	paldee	105.02	3	VII
y	ka	stillee	105.07	3	VII
y		sake	113.15	3	VIII
y		lirnee	126.03	3	VIII
y	ana	vvartee	126.07	3	VIII
y	er	baldee	132.17	3	IX
y	zva	vvartee	133.04	3	IX
y		trahtohee <sup>74</sup>	134.07	3	IX
y	pi	porgee	135.16	3	IX
y	pi	porkee	136.09	3	IX
y	zva	vvartee	137.01	3	IX

The table illustrates how prominent the double vowel spelling of this category is outside the sections of the text we usually associate with double spelling. Unlike the other categories we have surveyed so far this one also shows double vowel writing in some of the later quires of Scribe 1 and in the contributions of Scribe 3. There are 11 examples from the writings of Scribe 1 (of those three from Quire X) and 11 examples from the writings of Scribe 3 in the manuscript.

We have three different ways to interpret these instances of *ee* writing. It could be taken to represent one single  $\bar{e}$  which would imply that the ending had been absorbed into the stem vowel of the verb. We can also interpret the double writing as representing the analogical long form of the optative, namely  $-\bar{e}e$ , which is the formation we think is modeled after the  $\bar{o}$ -verb optative  $-\bar{o}e$ . The third alternative then would be to interpret this form as representing  $-ee$ , i.e. two consecutive short *e*-vowels.

<sup>74</sup> This is a somewhat unexpected form and perhaps somewhat misplaced here as it is not an  $\bar{e}$ -verb. There is an apparent  $\bar{o}$ -verb counter-example *trahto* 27.18 which was left out of the database. The form *trahtohee* might then indicate a long optative ending rather than a long stem vowel. It is likely that the form is corrupted.

As we have mentioned that the 3<sup>rd</sup> sg. optative ending has the regular outcome *-e* in OHG we would then have to assume that a shortening of the stem vowel of the verb had also occurred.

Since Scribe 3 usually does not indicate long vowel by double writing it is a strong indicator that the double writing here is not indicative of a long vowel, but rather a two distinct syllables (cf. discussion in Valentin 1969:119). This could then possibly have implications for our interpretation of other such items in the text. The interpretation of this writing as denoting a single long vowel cannot be totally excluded either. The writing of long vowels in an open syllable in an absolute final position might follow different tendencies than such vowels in other syllable types.

If the forms in question are indeed disyllabic it has significant repercussions for interpretation of other forms we have encountered when discussing other categories with forms in final *-ee*. These could then be interpreted as displaying the same sort of disyllabic ending.

Another implication is technical and concerns the organization of the database. If *ee* in these cases represents *-ēe* it entails that the spelling of the long vowel should rather be taken as examples of a single *-e* writing for intended *-ē* and should thus be organized in the database.<sup>75</sup>

One issue regarding these long or disyllabic 3<sup>rd</sup> sg. present optatives in OHG that we haven't mentioned is the phonetic plausibility of two vowels of the same quality occurring consecutively in unaccented position, especially if we assume that either or both might have been long. If such a form as 2<sup>nd</sup> person present optative *-habēēst* ever existed it is more than likely that it would have been simplified to a single long *ē*. It is still harder to imagine that such forms were formed analogically on the basis of *-ōēst*,

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<sup>75</sup> The implication of this view then is that the “logical” way of writing an ending *-ēe* in the Benedictine rule text would then be *-eee*!

which is perhaps a marginally more plausible form since it does not involve same quality vowels. The view that in OHG there were two “alternative” forms in the 3<sup>rd</sup> person sg. opt: *habe* vs. *habēē*, *habēe* or even *habee* is not very plausible from a phonetic standpoint. This would be an example of analogy that only works on paper but hardly in practice. Whether this phonetic implausibility is enough to counter the fact that this spelling is found in parts of the manuscript where we otherwise don’t encounter double spelling is a matter of debate.

Perhaps the problematic phonetics and the different distribution of the forms are not irreconcilable. We are left with further two options to explore. One is that the two *e*’s were not of the same quality. The *e*-vowels could show enough phonetic differentiation to be maintained as individual syllables but this fact is then not reflected in the spelling. The other possibility is that this spelling we find in Notker which seems to indicate such forms is only that, i.e. a spelling convention or a spelling peculiarity that does not reflect the phonetic reality.

One further complexity needs to be addressed. As is mentioned above we include both regular *ē*-verbs as well as verbs that can have *ē*-verb by-forms in the discussion. This latter category needs to be accounted for. There is some tendency in OHG for weak verbs to switch between classes. This makes it impossible to track all examples of possible III class 3<sup>rd</sup> sg. present optative. If we have a verb form in the 3<sup>rd</sup> sg. pres. opt., e.g. *lihhe* from 1<sup>st</sup> class verb *lihhen* ‘like’ it is impossible to determine whether this particular form is a regular formation with a short *-e* or a Class III variation with a long *-ē* (being written short). These examples though should be in a minority.

The only time where we can for certain determine that a verb that is otherwise known to be of a different class than Class III has taken on a Class III form is when we have double writing in the ending. A form like *lihhee* can therefore be detected and considered in our analysis.

Despite these flaws in our detection of verb forms we assume that the results are not skewed to the extent that renders the whole analysis worthless. The overall frequency of these forms is not very high and most of them can be considered belonging to the class of *ē*-verbs.

#### 5.3.4 *ēm-ending*

This ending is limited to the declension of the adjective and other adjectival element such as participles as well as pronouns. The origin of the ending is actually with the pronominal dative plural ending PG *\*-aim*, which has spread to the adjectives. The relationship between the adjectival and pronominal paradigms in Germanic is rather complicated and it is well documented that the pronouns influenced the declension pattern of the adjectives. This influence must have occurred after the split of Germanic into its major subgroups as it is differently realized in various dialects. Gothic and OHG both show dative plural endings that trace their origin to the influence of pronouns, whereas ON, OE and OS all have the common ending *-m* which is the same ending we find in the nominal paradigm (Krahe/Meid 1969b:77-78).

This is one of the best attested categories in the text and therefore the analysis is based on a rather large number of examples. The examples of double writing of the vowel occur exclusively where we expect to find them in the contribution of Scribe 1. In Table 5.3-13 we find all the examples of dative plural ending *-ēm* in the relevant parts of the text.

**Table 5.3-13**

	Prefix	Word	Place	P.o.s	Gender	Sc.	Qu.
n		sinem	10.08	poss. pron.	neut.	1	I
y		ejkaneem	11.04	pron. adj.	masc.	1	I
n		ubilem	11.14	adj.	fem.	1	I
n		unserem	11.14	poss. pron.	fem.	1	I
n		sinem	11.16	poss. pron.	neut.	1	I
y		unsereem	12.02	poss. pron.	neut.	1	I
y	Int	lohhaneem	12.08	part. pret.	masc.	1	I
n		unserem	12.09	poss. pron.	neut.	1	I
y	zua	luustrenteem	12.09	adj.	neut.	1	I
y		Iuueereem	13.15	poss. pron.	neut.	1	I
y		vnsereem	14.04	poss. pron.	fem.	1	I
y		cuateem	14.10	adj.	fem.	1	I
y		cuateem	15.10	adj.	fem.	1	II
n		desem	16.11	pron.	masc.	1	II
y		vviheem	16.11	adj.	uncertain	1	II
y		sineem	16.11	poss. pron.	masc.	1	II
n		truhtjnljhem	18.14	adj.	masc.	1	II
y	pi	lohhaneem	18.15	part. pret.	masc.	1	II
y		driskeem	19.04	num.	masc.	1	II
y		feoriskeem	19.05	num.	masc.	1	II
y		ejganeem	19.07	pron. adj.	masc.	1	II
y		vnerlaubantljhheem	19.08	adj.	neut.	1	II
n		desem	19.11	pron.	masc.	1	II
n	far	lazzanem	19.11	part. pret.	masc.	1	II
y		suhtigeem	21.02	adj.	fem.	1	II
n		vnhorsamen*	21.09	adj.	neut.	1	II
n		sinem	21.12	poss. pron.	masc.	1	II
y	far	stantanteem	21.15	part. pres.	masc.	1	II
y		herteem	21.16	adj.	masc.	1	II
n		sinem	21.17	poss. pron.	fem.	1	II
y		sineem	22.02	poss. pron.	fem.	1	II
y		andreem	22.03	num.	uncertain	1	II
y		cuateem	22.14	adj.	fem.	1	II
y		cuateem	23.09	adj.	neut.	1	II
y		andreem	23.09	num.	uncertain	1	II

**Table 5.3-13 (continued)**

y		alleem	23.11	adj.	masc.	1	II
y		alleem	23.12	adj.	masc.	1	II
y		vnekihafteem	24.05	adj.	masc.	1	II
y		vnstilleem	24.05	adj.	masc.	1	II
n		horsamem	24.06	adj.	masc.	1	II
y		mitivvareem	24.06	adj.	masc.	1	II
y		dultjgeem	24.07	adj.	masc.	1	II
y		herteem	25.02	adj.	masc.	1	II
y		vnkiuuareem	25.02	adj.	masc.	1	II
y		alleem	25.18	adj.	masc.	1	II
y		erdljheem	26.08	adj.	fem.	1	II
y	ze	farantljheem	26.08	adj.	fem.	1	II
y	ze	risenteem	26.08	adj.	fem.	1	II
y		furahtanteem	26.16	part. pres.	masc.	1	II
y	pi	folahaneem	27.07	adj.	neut.	1	II
y		fremideem	27.08	adj.	fem.	1	II
y		sineem	27.09	poss. pron.	unclear	1	II
y		sineem	27.10	poss. pron.	fem.	1	II
y		alleem	28.13	adj.	neut.	1	II
y		alleem	29.06	adj.	fem.	1	II
y		sineem	29.07	poss. pron.	fem.	1	II
y		alleem	32.16	adj.	neut.	1	III
y		eiganeem	35.05	pron. adj.	masc.	1	III
y	pi	hafteem	35.06	adj.	fem.	1	III
y		cuateem	37.13	adj.	uncertain	1	III
y		cuateem	37.14	adj.	fem.	1	III
y		vbileem	37.16	adj.	neut.	1	III
y		cuateem	37.18	adj.	fem.	1	III
y		uuiheem	37.18	adj.	fem.	1	III
y		duruhnohteem	38.01	adj.	masc.	1	III
y		alleem	38.13	adj.	fem.	1	III
y		vnsereem	39.17	poss. pron.	fem.	1	III
y	vf	stiganteem	39.18	part. pres.	masc.	1	III
y	vf	stiganteem	40.14	part. pres.	masc.	1	III
n		forahtanter*	41.04	part. pres.	masc.	1	III
y		vnsereem	41.16	poss. pron.	masc.	1	III

**Table 5.3-13 (continued)**

y		dineem	42.12	poss. pron.	masc.	1	III
y		vnsereem	42.15	poss. pron.		1	III
y		ruahhalosontem	43.03	part. pres.	masc.	1	III
y		dineem	43.14	poss. pron.	fem.	1	III
y	ke	zeliteem	44.01	part. pret.	masc.	1	III
y		herteem	45.09	adj.	fem.	1	III
y		vvidaruuarteem	45.10	adj.	fem.	1	III
y	ana	prunganeem	45.11	part. perf	neut.	1	III
y		alleem	46.07	adj.	neut.	1	III
y		uuidarvvarteem	46.17	adj.	neut.	1	III
n		sinem	50.19	poss. pron.	fem.	1	IV
y		sarfeem	80.15	adj.	fem.	1	VI
y		alleem	81.07	adj.	neut.	1	VI
n		allem	82.02	adj.	masc.	1	VI
y		deseem	83.02	pron.	masc.	1	VI
y	ke	ljmfanteem	83.09	part. pres.	fem.	1	VI
y	ke	entoteem	88.09	part. pret.	neut.	1	VI
n		iungem	90.06	adj.	uncertain	1	VI
y		uuanajejeem	90.08	adj.	masc.	1	VI

There are 90 examples of this ending here. Of those there are 73 (81%) written with a double vowel and 17 (19%) with a single vowel in the ending. We can see that an overwhelming majority of instances this ending is denoted with double vowel. When we look more closely at the data we see that some of the 17 examples of single vowel are problematic and should perhaps not be taken into account when calculating proportions. We notice that a couple of erroneous forms are found here, i.e. *forahtanter* 40.14 and *vnhorsamen* 21.09. where the ending attested is not actually *-em* but *-er* and *-en*. We also have among those 17 examples a number of forms with an abbreviated nasal, i.e. forms like *sinē* for *sinem* where the ending is not fully written out. It could well be the case that the abbreviation included the long vowel; at least it is clear that we don't have any examples of abbreviations of the type *-eē* or *-ēē*. There



are four examples of these abbreviated forms. All in all then we have six examples out of 17 where there might be some secondary orthographical peculiarity responsible for the lack of the double vowel. We are then left with eleven examples that seem to be clear cases of the single vowel form of the ending.

#### 5.3.4.1 Distribution of *-em/-eem* along quires

It is possible to interpret the results as showing a distinction between quires. In Quire I we find almost exclusively possessive pronouns exhibiting the short variant of the ending (bear in mind the caveat concerning abbreviation convention). For Quire I it might be tempting to explore whether we could argue that adjectives and possessive pronouns had different endings: adjectives (and participles) had the ending *-ēm* and possessive pronouns had the ending *-em*.

Let's take a closer look at the dative plural forms in Quire I.

**Table 5.3-14**

Prefix	Word	Place	P.o.s	Sc.	Qu.
	sinem	10.08	poss. pron.	1	I
	ejkaneem	11.04	pron. adj.	1	I
	ubilem	11.14	adj.	1	I
	unserem	11.14	poss. pron.	1	I
	sinem	11.16	poss. pron.	1	I
	unsereem	12.02	poss. pron.	1	I
Int	lohhaneem	12.08	part. pret.	1	I
	unserem	12.09	poss. pron.	1	I
zua	luustrenteem	12.09	adj.	1	I
	Iuereem	13.15	poss. pron.	1	I
	vnsereem	14.04	poss. pron.	1	I
	cuateem	14.10	adj.	1	I

This hypothesis does not hold as a general rule. We find both adjective forms in *-em* and pronouns in *-eem*. The single adjective exception *ubilem* 11.14 is found in the

phrase *fona ubilem tatim unserem* ‘from our bad deeds’ so perhaps the ending of this particular adjectival form has been influenced by the short ending of the pronominal form it stands with.

The pronominal forms in *-eem* are concentrated at the end of the quire. This distributional evidence is indicative of some external influence, perhaps even changes in the source manuscript. However we cannot verify this and must therefore conclude that both forms of the endings occur with both pronouns and adjectives.

Even though the distribution is not a general rule we can entertain the idea that pronouns are more prone to a loss of length and tend to exhibit a reduced form of the ending. At least it seems possible that pronouns are treated differently than adjectives. This tendency of reduced pronominal ending is clearly observable in Quire I. The situation in Quire II and III, and VI indicates a somewhat different story.

We will now discuss the distribution of the forms in Quire II. The tables below illustrate on one hand the forms with *-em* and on the other all the possessive pronoun forms found in Quire II.

**Table 5.3-15**

Prefix	Word	Place	Sc.	Qu.
	desem	16.11	1	II
	truhtjnljhem	18.14	1	II
	desem	19.11	1	II
far	lazzanem	19.11	1	II
	vnhorsamen*	21.09	1	II
	sinem	21.12	1	II
	<i>sinem</i>	21.17	1	II
	horsamem	24.06	1	II

**Table 5.3-16**

Prefix	Word	Place	Sc.	Qu.
	sineem	16.11	1	II
	sinem	21.12	1	II
	<i>sinem</i>	21.17	1	II
	sineem	22.02	1	II
	sineem	27.09	1	II
	sineem	27.10	1	II
	sineem	29.07	1	II

We see that we only have one or possibly two examples of a reduced pronominal form out of seven examples. Obviously the tendency for reduction here is far less prevailing than in Quire I. There are three adjectives, two demonstrative pronouns and one participle that exhibit the reduced form of the ending as well. One of them has the exceptional ending *-en*. The demonstrative pronouns could be exhibiting some sort of reduction. There is no clear explanation for the other three adjectives/participles, but again we can hardly expect the orthography to be 100% consistent. In the case of *truhtjnljhem* and *farlazzanem* their position on the page of the manuscript might be a factor. They are found at the end of a line and in case of *farlazzanem* space considerations have caused the word to be divided and partially written in an extra line on the margin. This does not apply to the form *horsamem* which cannot be explained away easily. It should be noted that *horsamem* is of course related to *vnhorsamen*. If the ending is phonologically conditioned and should have been dissimilated to *-en* (as is discussed in section 4.8.3) then this form would be corrupt as well, i.e. undissimilated *-m* instead of *-n*.<sup>76</sup> A likelier reason for the single vowel spelling here is simply a scribal error or inconsistency.

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<sup>76</sup> The *-en* ending has been explained as a result of a nasal dissimilation as all the examples of it occur where an *m* is the final consonant of the previous syllable. The form *horsamem* looks like it has not undergone the dissimilation, at least not on the surface. It is possible that the form *horsamem* indicates that the dissimilation has indeed occurred and the written form has been amended in line with other adjectival forms. There is no example of *-een* adjectival ending.

In Quire III we only have one example of the reduced form of the ending and it is from a defective form, which happens to be a present participle. Therefore we cannot draw any conclusions about distribution of different endings between adjectives and pronouns. It should be noted that all four examples of possessive pronominal forms in this quire have a double vowel in the ending.

**Table 5.3-17**

Word	Place	P.o.s	Sc.	Qu.
forahtanter*	41.04	part. pres.	1	III

There is one example from Quire IV, which is from the only line on page 50 where Scribe 1 has added to the work of Scribe 2. The form is *sinem* 50.19 with abbreviated ending. In Quire VI we only have two examples out of eight which show the reduced form of the ending and neither of those are pronominal forms. These are shown in Table 5.3-18. Actually there are no possessive pronominal forms found in Quire VI. A demonstrative pronoun form *deseem* 83.02 shows double vowel spelling.

**Table 5.3-18**

Word	Place	P.o.s	Sc.	Qu.
allem	82.02	adj.	1	VI
iungem	90.06	adj.	1	VI

From the evidence from our text we can safely conclude that the dative plural ending of adjectives, participles and pronouns was indeed *-ēm*. This is consistently denoted in the manuscript with *-eem*. There is a tendency for possessive pronouns (and perhaps also demonstratives) to have a reduced form of the ending *-em*, which might have arisen due to their different syntactic function. These reduced forms seem to be limited to Quires I and II. In case of adjectives endings that appear to show a similar reduction of the ending we may assume that the explanation is orthographical, i.e. either the

forms are corrupt or a spelling of a single vowel was sometimes favored for space saving reasons.

### 5.3.5 *ēr-ending*

OHG shows variation in certain case forms in the strong declension of adjectives. These alternate forms occur in nominative singular masculine and nom. acc. sing. neuter. A typical adjective often used when discussing adjectival forms in Germanic is the adjective ‘blind’, i.e. PG *\*blinda-* whose reflex is found in all the Germanic languages. In OHG the regular outcome of the nom. sg. masc. form as well as the nom./acc. sg. neuter form is *blint*. Besides these regular forms we also find by-forms like nom. sg. masc. *blintēr* and nom./acc. sg. neut. *blintaz* which indicate some secondary development. These innovative forms are often called ‘long forms’, vs. the regular ‘short forms’ without the extra morphological items, i.e. nom. sg. masc. *-ēr* and nom./acc. sg. neut. *-az*.

The origin of this ending is controversial. There have been various attempts to explain it. The oldest explanation assumes the involvement of the deictic particle *-i*. According to this theory we would have had in early Germanic two forms, such as *\*blindaz* and *\*blindazi*. Through some process of epenthesis or metathesis *blindazi* became *blindaiz* (cf. discussion in Wilmanns 1906:427). It is difficult to account for the neuter forms through a similar process.

Other scholars have assumed that the ending originates from the pronoun and has spread to the adjectives by a process of analogy. It is a known characteristic of the Germanic adjectival paradigm that pronominal forms have influenced some of the adjectival forms. As mentioned before this process occurred separately in individual branches as it is not consistent what forms are affected. It is therefore not unlikely that such processes might still be at work in the period of early OHG.

However the analogical process we assume to have occurred here is not straightforward. The main problem is that we are lacking a good candidate to be the source of the analogical change. There are no good examples of a pronoun or pronominal nom. sg. masc. ending in *-ēr* that can serve as a basis for this development. One widespread idea is that the pronoun is believed to be some form of the common demonstrative pronoun *der*. However this pronoun itself has a rather complicated origin in conflation of multiple pronominal roots, i.e. the *er* part contains the zero grade *i-* of the root *\*ei-*, cf. Latin *eius*, etc. and the *d* originates in the dental stems of *\*te-/to-* pronoun (cf. Krahe/Meid 1969b:60-69). The starting point is therefore an early OHG form *\*thēr*. The vowel length is explained as secondary development of the form *ther* with an emphatic lengthening of the root vowel (loc.cit). We have in OS similar pronouns, namely nom. sg. masc. *thē* which is believed to originate from as a secondary emphatic lengthening of earlier *\*the*. Such emphatic lengthening of pronouns has been postulated to account for various pronominal formations in Germanic. It is likely that e.g. ON *sá* originates in an emphatic lengthening of the pronoun *\*sa*, cf. Gothic *sa*, Skr. *sa*. Similar process is responsible for the long vowel in ON 1<sup>st</sup> person nominative plural *vér*, vs. Gothic *wis* (see also discussion in Sievers 1876:122).

The ending *-ēr* is attested in Notker where the vowel length of unaccented syllables is systematically denoted. The length of the vowel is further confirmed by other sources we have at our disposal, such as later development in Middle German. We therefore know that the vowel in question was long in some dialectal region of Alemannic. The evidence from the Benedictine rule is not as straightforward as we might have hoped; the double writing is not consistent but also does not seem to follow patterns that can be considered absolutely random. This becomes clearer when we look at the data

presented in Table 5.3-19. Here the instances of double vowel spelling are shown in bold for easier overview.

**Table 5.3-19**

V	Pref.	Word	Place	P.o.s	Form	Gender	Sc.	Qu.
n	er	flaucter	9.07	part. pret.	nom. sg.	masc.	1	I
n	ke	uuihter	10.06	part. pret.	nom. sg.	masc.	1	I
n		chamfanter	11.05	part. pres.	nom. sg.	masc.	1	I
n	ke	uuerdonter	11.12	part. pres.	nom. sg.	masc.	1	I
n	er	polganer	11.17	part. pret.	nom. sg.	masc.	1	I
n		forahtanter	12.01	part. pres.	nom. sg.	masc.	1	I
n	ke	cremiter	12.02	part. pret.	nom. sg.	masc.	1	I
y		<b>luzzileer</b>	15.08	adj.	nom. sg.	masc.	1	II
n		erhafter	16.17	adj.	nom. sg.	masc.	1	II
n		vvirdiger	19.15	adj.	nom. sg.	masc.	1	II
y		<b>inpuntaneer</b>	21.04	part. pret.	nom. sg.	masc.	1	II
n		eddesuueliher	21.11	indef. pron.	nom. sg.	masc.	1	II
y	far	<b>choraneer</b>	22.04	part. pret.	nom. sg.	masc.	1	II
n		ejner	22.14	num.	nom. sg.	masc.	1	II
n		andrer	22.14	num.	nom. sg.	masc.	1	II
n		friger	22.16	adj.	nom. sg.	masc.	1	II
n		frjer	23.04	adj.	nom. sg.	masc.	1	II
n		vnfruater	25.05	adj.	nom. sg.	masc.	1	II
n	er	kebanter	26.11	part. pres.	nom. sg.	masc.	1	II
y	er	<b>kebanteer</b>	27.04	part. pres.	nom. sg.	masc.	1	II
y	pi	<b>huctigeer</b>	27.09	adj.	nom. sg.	masc.	1	II
y	ke	<b>puazteer</b>	27.12	part. perf	nom. sg.	masc.	1	II
n		nihejner	28.16	indef. pron.	nom. sg.	masc.	1	II
n		enger	35.17	adj.	nom. sg.	masc.	1	III
n	ke	karater	41.05	part. pret.	nom. sg.	masc.	1	III
y	pi	<b>huctigeer</b>	42.05	adj.	nom. sg.	masc.	1	III
y		<b>piderbeer</b>	42.06	adj.	nom. sg.	masc.	1	III
n		unbiuuamter	42.07	adj.	nom. sg.	masc.	1	III
n	ke	sazter	43.12	part. pret.	nom. sg.	masc.	1	III
n		erhafter	44.08	adj.	nom. sg.	masc.	1	III
y		<b>vvortaneer</b>	45.07	part. pret.	nom. sg.	masc.	1	III
y		<b>deseer</b>	45.15	pron.	nom. sg.	masc.	1	III

**Table 5.3-19 (continued)**

y	ke	<b>haltaneer</b>	45.15	part. pret.	nom. sg.	masc.	1	III
n		cuater	47.14	adj.	nom. sg.	masc.	1	IV
n	ungi	laubiger	79.11	adj.	nom. sg.	masc.	1	VI
y		<b>spaheer</b>	81.01	adj.	nom. sg.	masc.	1	VI
n		riiffer	81.02	adj.	nom. sg.	masc.	1	VI
y		<b>chvskeer</b>	81.02	adj.	nom. sg.	masc.	1	VI
y		<b>ezzaleer</b>	81.03	adj.	nom. sg.	masc.	1	VI
y		<b>preiteer</b>	81.03	adj.	nom. sg.	masc.	1	VI
y		<b>truabaleer</b>	81.03	adj.	nom. sg.	masc.	1	VI
n		spildanter	81.04	part. pres.	nom. sg.	masc.	1	VI
n		trager	81.04	adj.	nom. sg.	masc.	1	VI
n		uuidarmuater	81.04	adj.	nom. sg.	masc.	1	VI
y	er	<b>kebaneer</b>	82.03	part. pres.	nom. sg.	masc.	1	VI
n		spildanter	82.07	part. pres.	nom. sg.	masc.	1	VI
y	ke	<b>holfaneer</b>	83.07	part. pret.	nom. sg.	masc.	1	VI
n	uzki	kanganer	87.08	part. pret.	nom. sg.	masc.	1	VI
n	ke	kanganer	87.13	part. pret.	nom. sg.	masc.	1	VI
n	ke	trostanter	88.15	part. pres.	nom. sg.	masc.	1	VI
n		lesanter	91.11	part. pres.	nom. sg.	masc.	1	VI

It is especially noteworthy that there is no double writing in this category in Quire I. There are indications that some phonological factors need to be taken into consideration here. The phonological characteristics of adjacent sounds, such as voicing, can influence the quantity of vowels. Let's consider the following hypothesis regarding the distribution. The long vowel, written double, is found after voiced consonants and the short vowel, written single, after voiceless consonants.

Table 5.3-20 below shows how this pans out. The column headed "OK" shows a checkmark if the form is consistent with the hypothesis and an exclamation mark when it is not, i.e. when the ending is spelled with a double vowel after a voiceless consonant or single vowel after a voiced consonant.



Table 5.3-20

Pref.	Word	Place	P.o.s	Type	OK	Qu.
	<b>luzzileer</b>	15.08	adj.	ler	✓	II
	erhafter	16.17	adj.	ter	✓	II
	vvirdiger	19.15	adj.	ger	!	II
	<b>inpuntaneer</b>	21.04	part. pret.	ner	✓	II
fär	<b>choraneer</b>	22.04	part. pret.	ner	✓	II
	eddesuueliher	21.11	indef.pron.	her	✓	II
	einer	22.13	num.	ner	!	II
	andrer	22.14	num.	rer	!	II
	friger	22.16	adj.	ger	!	II
	frjer	23.04	adj.	ier	!	II
	vnfruater	25.05	adj.	ter	✓	II
er	kebanter	26.11	part. pres.	ter	✓	II
er	<b>kebanteer</b>	27.04	part. pres.	ter	!	II
pi	<b>huctigeer</b>	27.09	adj.	ger	✓	II
ke	<b>puazteer</b>	27.12	part. pret.	ter	!	II
	nihejner	28.16	indef. pron.	ner	!	II
	enger	35.17	adj.	ger	!	III
ke	karater	41.05	part. pret.	ter	✓	III
pi	<b>huctigeer</b>	42.05	adj.	ger	✓	III
	<b>piderbeer</b>	42.06	adj.	ber	✓	III
	unbiuuamter	42.07	adj.	ter	✓	III
ke	sazter	43.12	part. pret.	ter	✓	III
	erhafter	44.08	adj.	ter	✓	III
	<b>vvortaneer</b>	45.07	part. pret.	ner	✓	III
	<b>deseer</b>	45.15	pron.	ser	!	III
ke	<b>haltaneer</b>	45.15	part. pret.	ner	✓	III
	cuater	47.14	adj.	ter	✓	IV
	ungilaubiger	79.11	adj.	ger	!	VI
	<b>spaheer</b>	81.01	adj.	her	!	VI
	riiffer	81.02	adj.	fer	✓	VI
	<b>chvskeer</b>	81.02	adj.	sker	!	VI
	<b>filuezzaleer</b>	81.03	adj.	ler	✓	VI
	<b>preiteer</b>	81.03	adj.	ter	!	VI
	<b>truabaleer</b>	81.03	adj.	ler	✓	VI
	spildanter	81.04	part. pres.	ter	✓	VI

**Table 5.3-20 (continued)**

	trager	81.04	adj.	ger	!	VI
	uuidarmuater	81.04	adj.	ter	✓	VI
er	<b>kebaneer</b>	82.03	part. pret.	ner	✓	VI
	spildanter	82.07	part. pres.	ter	✓	VI
ke	<b>holfaneer</b>	83.07	part. pret.	ner	✓	VI
uz-ki	kanganer	87.08	part. pret.	ner	!	VI
ke	kanganer	87.13	part. pret.	ner	!	VI
ke	trostanter	88.15	part. pres.	ter	✓	VI
	lesanter	91.11	part. pres.	ter	✓	VI

The results of this observation are mixed. The hypothesis does not hold as a consistent rule without exceptions, although we can say that the distribution seems to be largely along the lines we suggested. Before we reach a conclusion about the relevance of phonological factors we need to consider the role of division between quires.

#### 5.3.5.1 *Distribution of -er/-eer across quires*

In Quire II we have sixteen examples and nine of them conform to the general tendency. However some of the exceptions might be susceptible to different processes. The first exception is *vvirdiger* 19.15. We have a another example of this word, *uuirdikier* in 51.02, written by Scribe 2. This shows that the consonant of the suffix might have been voiceless. Other exceptions such as, *ejner* 22.13 and *andrer*, 22.14 ‘one ... other’, might be excluded as it is part of a conjunctive phrase and therefore belong to a different grammatical class than the other words. The word *frjer* 23.04 and *friger* 22.16 is phonologically odd: two syllables with no consonantal onset for the second syllable. It is likely that this both influenced the phonological development of the word as well as its spelling. Other exceptions are: *kebanteer* in 27.04 and *puazteer* in 27.12. It should also be noted that *kebanter* occurs in 26.11. Both of the apparent exceptions have in common to have a consonant cluster immediately preceding the vowel in question. It is hard to see how this fact might be relevant. We would rather

expect the opposite in line with the tendencies we observe with *-ī* as will be discussed in section 6.3.1.

Perhaps the voicing effect of the *n* is a factor in *kebanter* which could help explain why it sometimes has a short vowel as in 26.11 and sometimes a long vowel as in 27.04. The form *puazteer* cannot be explained away easily. Here both preceding consonants are voiceless. The last remaining exception *nihejner* could be explained along similar lines as *ejner* in 22.13.

In Quire III we have ten examples of which eight follow the tendency. The exceptions are *enger* 35.17, which cannot be easily explained, and *deseer* 45.15 which could show influence from following *kehaltaneer*. In Quire IV we have only one example written by Scribe 1. It is in line with what we would expect.

In Quire VI we have 17 examples and seven of them do not conform to the tendency. It seems our system breaks down here. Some exceptions can be explained rather easily, e.g. *preiteer* positioned right between *filuezzaleer* and *truabaleer*, but others require more stipulations. It's likely that the confusion here is a result of a different distribution found in the source manuscript, i.e. the two variations were in more or less free distribution, or had fallen together but could be written either way.

The following data can be interpreted as strongly supporting the idea that there were two variants of the nominative ending *-ēr*, i.e. there was also a shorter variant *-er*. The origin of this short variant can be established along similar lines as the argumentation goes for the longer variant. It is even more straight-forward as it is easy to find the source of this apparent analogical extension of the regular form in pronominal forms such as *er* and *hwer*.

We can follow this thought process a little bit further and consider the following scenario. Originally the regular pronominal *er* was the source of the analogical extension of the adjectival forms. This *-er* was then phonologically lengthened under

certain circumstances, i.e. after voiced consonants. After a period of systematic distribution of the variants in line with phonological rules the variants were susceptible to analogical reassignment and the phonetic distribution became blurry. Finally the variants fell together and the longer version prevailed as is evident from the Notker text and the later development of German.

There is another possibility that could explain the distributional tendencies of the single vs. double writing as observed in the text. As we can tell from looking at the data, double writing is more frequent in certain grammatical categories.

**Table 5.3-21**

Pref.	Word	Place	P.o.s	Type	OK	Qu.
	<b>luzzileer</b>	15.08	adj.	ler	✓	II
	erhafter	16.17	adj.	ter	✓	II
	vvirdiger	19.15	adj.	ger	!	II
	friger	22.16	adj.	ger	!	II
	frjer	23.04	adj.	ier	!	II
	vnfruater	25.05	adj.	ter	✓	II
pi	<b>huctigeer</b>	27.09	adj.	ger	✓	II
	enger	35.17	adj.	ger	!	III
pi	<b>huctigeer</b>	42.05	adj.	ger	✓	III
	<b>piderbeer</b>	42.06	adj.	ber	✓	III
	unbiuuamter	42.07	adj.	ter	✓	III
	erhafter	44.08	adj.	ter	✓	III
	cuater	47.14	adj.	ter	✓	IV
	ungilaubiger	79.11	adj.	ger	!	VI
	<b>spaheer</b>	81.01	adj.	her	!	VI
	riiffer	81.02	adj.	fer	✓	VI
	<b>chvskeer</b>	81.02	adj.	sker	!	VI
	<b>filuezzaleer</b>	81.03	adj.	ler	✓	VI
	<b>preiteer</b>	81.03	adj.	ter	!	VI
	<b>truabaleer</b>	81.03	adj.	ler	✓	VI
	trager	81.04	adj.	ger	!	VI
	uuidarmuater	81.04	adj.	ter	✓	VI
	nihejner	28.16	indef. pron.	ner	!	II

**Table 5.3-21 (continued)**

	eddesuueliher	21.11	indef.pron.	her	✓	II
	einer	22.13	num.	ner	!	II
	andrer	22.14	num.	rer	!	II
er	kebanter	26.11	part. pres.	ter	✓	II
er	<b>kebanteer</b>	27.04	part. pres.	ter	!	II
	spildanter	81.04	part. pres.	ter	✓	VI
	spildanter	82.07	part. pres.	ter	✓	VI
ke	trostanter	88.15	part. pres.	ter	✓	VI
	lesanter	91.11	part. pres.	ter	✓	VI
ke	<b>puazteer</b>	27.12	part. pret.	ter	!	II
	<b>inpuntaneer</b>	21.04	part. pret.	ner	✓	II
far	<b>choraneer</b>	22.04	part. pret.	ner	✓	II
ke	karater	41.05	part. pret.	ter	✓	III
ke	sazter	43.12	part. pret.	ter	✓	III
	<b>vvortaneer</b>	45.07	part. pret.	ner	✓	III
ke	<b>haltaneer</b>	45.15	part. pret.	ner	✓	III
er	<b>kebaneer</b>	82.03	part. pret.	ner	✓	VI
ke	<b>holfaneer</b>	83.07	part. pret.	ner	✓	VI
uz-ki	kanganer	87.08	part. pret.	ner	!	VI
ke	kanganer	87.13	part. pret.	ner	!	VI
	<b>deseer</b>	45.15	pron.	ser	!	III

It seems that the stronghold of the long ending is the preterite participles of strong verbs. Six out of eight forms show this. The two forms that are exceptions are both the same word *kanganer* and both from the same page in Quire VI of the manuscript. This is the start of a short section by Scribe 1 in between the contribution of Scribe 3. It is therefore probable that some scribal issues are responsible for the lack of the double writing. We could perhaps assume that the lengthened variant originated in the preterite participles of the strong verbs and spread from there to the other categories, probably first to the participles of weak verbs and to adjectives in *-n* and then to other adjectives. It is however hard to consolidate this scenario with the data we find here.

### 5.3.6 Reevaluating hypothesis (5)

When we first compared the distributional pattern of the *mēs*-ending to the distributional pattern of comparable *ē*-categories we noticed a difference between the *mēs*-ending and the *ēm*-ending, but not between the *mēs*-ending and any of the other categories. Our first impression was therefore that the uniqueness of the distributional pattern of the *mēs*-ending was not very robust. A careful examination of all these other categories has revealed different factors at work that make direct comparison between the categories very difficult, if not impossible. We have shown that we need to take phonological evidence into consideration when we evaluate the double vowel writing and we have identified a variety of issues that are category-specific and need to be viewed in the context of that particular category.

It is particularly interesting to compare the *mēs*-ending with the *ēr*-ending of adjectives. This ending is also unique to OHG. As we have seen from the discussion above there are strong indications that the adjectival ending might have been lengthened secondarily. In other words this ending was possibly originally short. If the *mēs*-ending patterns with this ending, it might be an indication of a similar origin, i.e. the *mēs*-ending might have been originally short but lengthened secondarily.

It is not surprising that these two categories show different distributional pattern than the *ēm*-ending category, which has a clear historical origin in a long vowel from a diphthong. We could then say we have a clear distinction between categories that go back to a unambiguous *ē* vs. those that do not. The category of *ē*-verbs does not fit well in this generalization as this category shows similar distribution pattern as the *mēs*-ending and the *ēr*-ending and different from the *ēm*-ending. This category also clearly goes back to a long vowel. We would therefore expect this category to show distributional tendencies along the same line as the *ēm*-ending of adjectives. However the occurrence of many examples of *ē* in medial syllables in various verb forms

obscures the picture somewhat. As we observed double vowel is rarely written in such forms. This fact along with the scarcity of examples and the problem of separating clear examples of  $\bar{e}$ -verb from examples showing optatives obscures the picture somewhat and makes this category not as well suited for direct comparison as the other two.

The conclusion must be that we have not found any evidence that disproves the hypothesis about the uniqueness of the distributional pattern, although we have to conclude that comparison of distributional patterns of different categories is difficult. We might consider a slight revision to account for the similarities with the adjectival ending in  $-\bar{e}r$ . We therefore maintain that (5) *The distributional pattern of 1<sup>st</sup> person plural ending -mēs is different from comparable categories with a clear historical  $\bar{e}$ .* The next step is to see if the categories with  $\bar{e}$  are somehow different from any other long vowel categories and to see how the  $m\bar{e}s$ -ending compares to similar items that also have a long vowel, but of a different quality, in non-root position.

## 6 Other long vowel categories

### 6.1 Introduction

In this section we will discuss grammatical categories which have forms with long vowels, other than  $\bar{e}$ , in non-root position. We will review the examples collected in the database and look at the evidence for the length of the relevant syllable as well as the variation in spelling and the proportions of single vs. double vowel writing. The purpose is to explore the difference between various categories in this regard and find out how the distributional facts compare with the  $\bar{e}$ -forms already discussed. We will try to identify the factors that come into play when looking at apparent spelling irregularities to see if they reflect some phonological tendencies or if they can be accounted for by graphical or scribal reasons. We will evaluate hypothesis (6) in light of the results of our finding.

### 6.2 Categories with $\bar{a}$

#### 6.2.1 $\bar{a}$ -endings

This label is applied to two case forms in two classes of nouns: nominative and accusative plural of  $a$ - and  $\bar{o}$ -stems. In our active database we label 49 examples of nom. and acc. pl. for these two classes of nouns. Of those 49 examples 26 occur in the writings of Scribe 1 where we find variation in spelling of long vowels. The following table shows the distribution of the forms and the occurrences in the text.



**Table 6.2-1**

Prefix	Word	Place	Class	Form	Gender	Scribe	Quire
	halsa	9.18	noun	acc. pl.	masc.	1	I
	scalcha	12.03	noun	acc. pl.	masc.	1	I
	taga	13.06	noun	acc. pl.	masc.	1	I
	lefsa	13.10	noun	acc. pl.	masc.	1	I
	sinda	14.06	noun	acc. pl.	masc.	1	I
	aha	16.07	noun	nom. pl.	fem.	1	II
	antlazza	16.14	noun	nom. pl.	masc.	1	II
	taga	16.14	noun	nom. pl.	masc.	1	II
ki	dancha	18.05	noun	acc. pl.	masc.	1	II
	suntan	24.10	noun	acc. pl.	fem.	1	II
	sela	25.13	noun	acc. pl.	fem.	1	II
ke	dancha	32.01	noun	acc. pl.	masc.	1	III
	kirida	32.14	noun	acc. pl.	fem.	1	III
	leera	33.14	noun	nom. pl.	fem.	1	III
	vveka	37.10	noun	acc. pl.	masc.	1	III
	stiaga	40.12	noun	acc. pl.	masc.	1	III
ke	dancha	41.07	noun	nom. pl.	masc.	1	III
	kirida	41.09	noun	acc. pl.	fem.	1	III
ke	dancha	42.01	noun	acc. pl.	masc.	1	III
ke	dancha	42.02	noun	acc. pl.	masc.	1	III
ke	dancha	42.03	noun	nom. pl.	masc.	1	III
ki	dancha	42.05	noun	acc. pl.	masc.	1	III
	uueka	42.17	noun	nom. pl.	masc.	1	III
	kirida	44.14	noun	acc. pl.	fem.	1	III
ki	dancha	47.07	noun	acc. pl.	masc.	1	IV
	hreinida	87.09	noun	acc. pl.	fem.	1	VI

The picture that emerges is quite clear. In every example the ending is *-a*. There is no double writing indicating a long vowel in the ending. This lack of length indication in the manuscript for this category has been observed before (cf. Mensel 1902 and Valentin 1969).

Based solely on the above observation and evidence from this particular text we might conclude that this category did not have a long vowel at all. However further evidence for a long vowel ending in both OHG masculine *a*-stems and in feminine *ō*-stems is found elsewhere. The length of the vowel is indicated in the works of Notker where we find the ending somewhat regularly written as *-â*. It should be noted here that there is a difference in Notker between the treatment of masculines *a*-stems and the feminine *ō*-stems. In the *a*-stems the regular ending is *-a* and *-â* is only found sporadically, i.e. eight nominative cases and two accusative cases (Braune/Eggers 1987:182). On the other hand the *ō*-stems have *-â* as the regular ending in both nominative and accusative case throughout Notker. Evidence from later Swiss dialects further indicates that the vowel in this category contained a long vowel at some point (cf. Bohnenberger 1913).

There are two main schools of thought regarding this situation. One is that the regular development of both nominative and accusative plural was to an *-a* in OHG. The evidence for endings in *-ā* then must be explained as some sort of secondary development (cf. Braune/Reiffenstein 2004:185, 196). The other is that OHG preserved at an earlier stage two distinct endings *-a* and *-ā*. These two endings later got mixed up and conflated and the distinction between them was lost (cf. Braune/Eggers 1987:182-183).

Under the second approach both variants of the ending are inherited and existed side by side in an earlier form of the language. Old nominative ending would have come out as *-ā* and the old accusative ending as *-a*. (Krahe/Meid 1969b:11). This would explain why there could be two variants of the ending found in the first place. The reason why the endings later got mixed up in the early stages of OHG was probably analogical pressure from the singular where after the disappearance of the nominative singular ending there was no longer a distinction between the nominative and the

accusative. Another source of analogical pressure would have been from the declension patterns of other common noun classes, which did not exhibit any difference between nominative and accusative plural forms (Braune/Eggers 1987:183). The conclusion then must be that at the time of the manuscript or the source manuscript the *ā*-ending did not exist. Depending on what we believe, either it had not yet developed or the early *ā*-ending had been abandoned in favor of the shorter *a*-ending. The uncertainty regarding the origin of this ending and the consistency of the single writing of the vowel suggests that this ending should not be taken into consideration when discussing the grammatical items under scrutiny here. It will therefore not be useful when we compare the distributional pattern between double and single writing in those categories where there truly is an alternation in the spelling.

### 6.2.2 *ān*-adverbs

The words in the text are only a handful. These are *danân* ‘from there’, *hwanân* ‘from where’, *uzzân* ‘without’ and *allaswanân* ‘elsewhere’. These adverbs are sometimes found in different syntactic functions as conjunctions or even prepositions in other OHG texts. Here they are exclusively found in adverbial function. There are 17 examples of such adverbs used in the database, the majority of which is *danân*. The distribution of the forms in the relevant quires of Scribe 1 is as follows:

**Table 6.2-2**

Word	Place	Scribe	Quire
danan	16.03	1	II
<b>danaan</b>	17.12	1	II
huuanan	27.17	1	II
<b>uzzaan</b>	29.01	1	II
danan	29.17	1	II

Word	Place	Scribe	Quire
danan	29.18	1	II
<b>danaan</b>	35.16	1	III
<b>danaan</b>	39.12	1	III
danan	43.12	1	III

The only word where we have alternation between single and double vowel writing is *danân*. There are three examples of *danan* vs. three examples of *danaan*. The length of the vowel is clearly not phonologically conditioned. There is also no identifiable pattern based on quire division. The use of the double vowel here is therefore not easily explained. Since these words had multiple use as stressed items, such as initial adverbs, as well as prepositions and conjunctions, it is imaginable that two versions were around, one with a short vowel and another with a long vowel, which might have influenced the orthography. The small number of examples makes it hard to compare this category to the *ē*-categories.

### 6.2.3 *āri*-suffix

This suffix is commonly used to form agent nouns. It is believed to originate in the Latin suffix *-ārio-* but was borrowed into Germanic at a very early stage (Sütterlin 1887:78). Some scholars have maintained other origins of this suffix (cf. Goebel 1900:321 who takes it to originate as a second member of compound nouns in Germanic). Examples of the formation are found in all branches of Germanic. As a result we can reconstruct a common PG suffix *\*-ārja-*. On the basis of Latin patterns such as *monitārius* to *moneta* we have in OHG *munizzāri* to *munizza*, OS *muniteri* to *munita*, OE *mynetere* to *mynet* or ‘fashioner of currency’ vs. ‘currency’ (Krahe/Meid 1969c:81-82). Early on the suffix was used to form some sort of agent nouns from original nouns, such as Gothic *bōkareis* ‘booker’ from *bōka* ‘letter’ and in the same way OHG *puahhāri* (loc.cit).

This formation became more and more associated with verbs and the suffix was actively used to form agent nouns from verbs of all classes, e.g. OHG *jagāri* ‘hunter’ from *jagōn* ‘hunt’ (2<sup>nd</sup> class weak), *nemāri* ‘taker’ from *neman* ‘take’ (4<sup>th</sup> class strong)

etc. (loc. cit). We also have a number of words which are not derived in Germanic but are loanwords with this suffix, e.g. *karkāri* ‘carker’ *altāri* ‘alter’ (Braune/Reiffenstein 2004:191).

The suffix shows certain variation when it comes to the length of the vowel. The form *-āri* is attested in Notker where we have circumflex accent sign confirming the length. Another confirmation of the length is the use of the form in Otfrid where it is metrically significant (Braune/Reiffenstein 2004:191). In OHG we also find other forms of the suffix in *-ari*, *-eri* and *-iri* (Krahe/Meid 1969c:83). These are mostly found in Franconian where the short form *-ari* had an umlauted form *-eri* which sometimes was weakened to *-iri* (Braune/Reiffenstein 2004:191). To account for this and forms in OS in *-eri* and OE in *-ere* we can assume that already in PG there was a by-form with a short vowel. Next to the regular form *\*-ārja* we also have to assume there was a by-form *\*-arja* (Krahe/Meid 1969c:83). Some scholars have taken the different vowel quantity as an indication that the suffix was borrowed into Germanic at two different time periods (cf. Henzen 1947:160).

The picture we get from the examples of these types of words in the Benedictine rule text is quite clear. None of the examples show any indication of a long *a*-vowel. There are 18 examples in the database of which six are from the relevant quires of Scribe1.<sup>77</sup>

**Table 6.2-3**

Word	Place	P.o.s	Form	Gender
suuihharro	19.03	noun	gen. pl.	masc.
suanarre	29.07	noun	dat. sg.	masc.
lerarum	35.02	noun	dat. pl.	masc.
altarres	82.05	noun	gen. sg.	masc.
vvehharre	87.18	noun	nom. pl.	masc.
vvehharre	88.08	noun	nom. pl.	masc.

<sup>77</sup> There are two further examples from Scribe 1 in quires IX and X: *spentari*, 142.03 and *zehaningarro*, 146.16. Since those are from the part of the text where Scribe 1 does not indicate length we will leave them out of our discussion.

There is no double writing of the vowel. The results can be interpreted two ways. One possibility is that the length of the  $\bar{a}$  is not denoted in the text as it occurs in medial syllables. Since we only have six potential forms it cannot be excluded that this is the case. Another explanation is that in this particular dialect of Alemannic the dominating form of the suffix was *-ari*, i.e. with a short *a*, the same form which was dominant in Franconian. If this is the case the lack of length denotation needs not to be explained any further.

A prominent feature of words in *-ari* in the Benedictine rule text is the double writing of *r* in certain forms. These forms are the oblique forms in the singular and all forms in the plural which previously had *-j-* as an allophone of the *i* in the suffix. (Braune/Reiffenstein 2004:191). We would then expect gen sg. *suanārres* ‘judge’ from earlier *\*suanārjes*. This feature is limited to Alemannic and is most prominent in the Benedictine rule text but is also found sporadically in Notker. Elsewhere in OHG we have no such doubling of *r*. Five out of our six examples here show this doubling. There is one form, *lerarum*, where we do not see the double *rr*, even though we might expect it there, i.e. *\*\*lerarrum* < *\*lerārjum*. This is the only exception to the general tendency.

It is perhaps not impossible that the double writing of the *r* might have some influence on the double writing of the vowel. It is rather rare that we have both long consonant and double vowel denoted in the same word. There are some examples though, e.g. *hoorreen* 28.11 and *leerran* 38.08. It is noteworthy that in other cases where we expect an  $\bar{a}$  and have a double *rr* immediately following the  $\bar{a}$  is always written as a single *a*, e.g. *lihhisarro* 18.08 (compound), *suuarrera* 88.05 (root). However the examples of this are rather few. Perhaps we can entertain the idea of a simple phonological rule where a long  $\bar{a}$  is shortened to a short *a* when followed by a long *rr*. This would allow

us to assume the same original form of the suffix was once present in this dialect as in other Alemannic dialects, namely *-āri*, which then only later underwent this secondary development. The lack of alternation between single and double spelling makes this category insignificant when comparing distributional patterns.

#### 6.2.4 Comparing *ē*- and *ā*-categories

We have now surveyed the three categories where we find unaccented *ā*. We notice that only one of those, the *ān*-suffix, shows alternation between single and double writing. Unfortunately the examples of this suffix were not very many and none are found in Quire I. This means that comparison with the *ē*-categories is impossible.

### 6.3 Categories with *ī*

#### 6.3.1 *īn*-feminines

Under this heading we have instances of feminine abstract nouns that historically go back to *n*-stems in PG *\*-īn-*. This class of nouns is attested in all branches of Germanic but cannot be reconstructed as a PIE class (Krahe/Meid 1969b:48). In OHG the final *n* has been dropped and as a result these nouns show little variation in the paradigm, with many homophonous forms, e.g. *hōhī* ‘height’ can be interpreted as both nom., acc., gen., and dat. singular and nom., acc. plural (Braune/Reiffenstein 2004:211).

These nouns are well attested in the text with 197 examples labeled in the active database. In a majority of cases (104 out of 197), the vowel of the ending is written with a double *ii* or *ji*.<sup>78</sup> The distribution of the double vowel writing is different from any other category as it is not limited to the earlier quires of Scribe 1 but occurs in the contribution of all the scribes. This special distributional pattern was observed early on

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<sup>78</sup> The *j* is a transcription for the vowel when it is combined with the preceding consonant to form a ligature.

in the study of the manuscript (cf. Mensel 1902:31-32). The double vowel spelling only occurs where the *ī* is in absolute final position, i.e. not in gen. and dat. plural (cf. *ibid.*). Although double vowel spelling is found in the contribution of all the scribes the frequency of the double writing is different between scribes and is most common for Scribe 1. The discussion here will follow the division into quires. First we will discuss the initial contribution of Scribe 1 and then move on to the contribution of Scribe 2 and initial contribution of Scribe 3, and subsequently the later contributions of Scribe 1 and Scribe 3. The forms from the first three quires are found in Table 6.3-1 below:

**Table 6.3-1**

V	Pref.	Word	Place	P.o.s.	Form	Gender	Sc.	Qu.
y		horsamii	8.03	noun	gen. sg.	fem.	1	I
n		deonosti	8.17	noun	gen. sg.	fem.	1	I
y		hejlji	9.08	noun	gen. sg.	fem.	1	I
n		svazzi	9.11	noun	gen. sg.	fem.	1	I
y		antrejtji	10.04	noun	nom. sg.	fem.	1	I
y		horsamii	10.18	noun	gen. sg.	fem.	1	I
y		slaffii	11.01	noun	acc. sg.	fem.	1	I
y		unhorsamii	11.01	noun	gen. sg.	fem.	1	I
y		horsamii	11.06	noun	gen. sg.	fem.	1	I
y		finstii	13.01	noun	nom. sg.	fem.	1	I
y		managii	13.03	noun	dat. sg.	fem.	1	I
n		vvarhafti	15.01	noun	acc. sg.	fem.	1	II
y		digii	15.17	noun	dat. sg.	fem.	1	II
y		niuvvii	17.15	noun	gen. sg.	fem.	1	II
y		horsamii	20.11	noun	gen. sg.	fem.	1	II
y		piderbii	20.16	noun	gen. sg.	fem.	1	II
y		kernii	21.01	noun	nom. sg.	fem.	1	II
n		vvarhaftj	21.06	noun	acc. sg.	fem.	1	II
y		hejlantii	21.07	noun	acc. sg.	fem.	1	II
y		egii	22.08	noun	acc. sg.	fem.	1	II
y		horsamii	22.15	noun	dat. sg.	fem.	1	II
n		deonosti	22.16	noun	dat. sg.	fem.	1	II



**Table 6.3-1 (continued)**

y		ekii	23.13	noun	gen. sg.	fem.	1	II
y		crjmmii	24.03	noun	acc. sg.	fem.	1	II
y		erhaftii	24.03	noun	acc. sg.	fem.	1	II
y		huuialjhhii	25.17	noun	dat. sg.	fem.	1	II
y		hejlji	26.05	noun	acc. sg.	fem.	1	II
y	vntar	uuorfanii	28.05	noun	dat. sg.	fem.	1	II
y		ekii	29.03	noun	dat. sg.	fem.	1	II
y		urchundii	30.03	noun	acc. sg.	fem.	1	II
y		aabulkii	30.13	noun	acc. sg.	fem.	1	II
y		abulkii	30.13	noun	gen. sg.	fem.	1	II
n		uuarhaftj	30.17	noun	acc. sg.	fem.	1	II
n		vvidarmuatj	31.01	noun	acc. sg.	fem.	1	II
y		hreinii	33.19	noun	acc. sg.	fem.	1	III
y		statigii	34.07	noun	nom. sg.	fem.	1	III
y		horsamii	34.08	noun	dat. sg.	fem.	1	III
y		hoorsamii	34.10	noun	nom. sg.	fem.	1	III
y		hoorsamii	35.08	noun	gen. sg.	fem.	1	III
y		hoorsamii	36.08	noun	nom. sg.	fem.	1	III
y		hoorsamii	36.12	noun	nom. sg.	fem.	1	III
y		suuigalji	37.15	noun	acc. sg.	fem.	1	III
y		fruatji	38.02	noun	acc. sg.	fem.	1	III
y		suuigilji	38.02	noun	gen. sg.	fem.	1	III
y		vrlaubii	38.03	noun	nom. sg.	fem.	1	III
y		eruuirdii	38.10	noun	dat. sg.	fem.	1	III
y	er	habanii	39.03	noun	acc. sg.	fem.	1	III
y		ubar <sup>u</sup> muatji	39.04	noun	gen. sg.	fem.	1	III
y		mihhilii	39.07	noun	nom. sg.	fem.	1	III
y		obonoontikii	39.13	noun	acc. sg.	fem.	1	III
y	er	habanii	39.14	noun	dat. sg.	fem.	1	III
y	er	habanii	40.05	noun	dat. sg.	fem.	1	III
y		ekii	40.13	noun	gen. sg.	fem.	1	III
y		akezzalii	40.17	noun	acc. sg.	fem.	1	III
y		ejkinii	41.09	noun	gen. sg.	fem.	1	III
n	ki	sihtj	41.13	noun	dat. sg.	fem.	1	III
y		cotchundii	41.13	noun	gen. sg.	fem.	1	III
n		lentj	41.18	noun	acc. pl.	fem.	1	III

**Table 6.3-1 (continued)**

n		deomuajtj	44.12	noun	gen. sg.	fem.	1	III
y		hoorsamii	45.05	noun	dat. sg.	fem.	1	III
y		hoorsamii	45.09	noun	dat. sg.	fem.	1	III
n	jn	huctj	45.12	noun	dat. sg.	fem.	1	III
n		cotchundi	46.05	noun	gen. sg.	fem.	1	III

There are 63 examples found in these first three quires. Out of those 63 we have 12 with a single vowel spelling and 51 with a double vowel spelling. There are some phonological factors that can be identified as possibly playing a part in the spelling variation. In eight out of the 12 examples of single vowel spelling there is a consonant cluster of the type *Ct* immediately preceding the *i*-ending. In all but one case the consonant in question is a voiceless fricative; the exception is *lenti* with a nasal of unclear voicing status. The three short vowel cases that are not of a *Ct* structure are *svazzi*, *vvidarmuatj*, *deomuajtj* and *cotchundi*. All of these share partial phonological characteristics with the main *Ct*-group; *svazzi* has a dental affricate which has phonological characteristics of both a dental stop and a sibilant, *vvidarmuatj* and *deomuajtj* have a voiceless dental immediately preceding the ending and *cotchundi* has a voiced dental preceded by nasal consonant.<sup>79</sup>

The consistency of the phonological material of the short vowel cases is rather intriguing. However the influence of the syllabic structure on the spelling that we observe here does not seem to constitute a general rule, i.e. we also have examples of items of same *Ct*-structure with a double vowel ending. In the following table we find all the examples of this kind as well as those with a dental stop or affricate immediately preceding the ending.

<sup>79</sup> The form *svazzi* could be influenced by homophonous adjective which would have a short final vowel, cf. *suazzi* 36.09 which is an acc. sg. masc. form of the adjective.

**Table 6.3-2**

V	Pref.	Word	Place		P.o.s.	Form	Sc.	Qu.
n		deonosti	8.17		noun	gen. sg.	1	I
n		svazzi	9.11		noun	gen. sg.	1	I
n		vvarhafti	15.01		noun	acc. sg.	1	II
n		vvarhaftj	21.06		noun	acc. sg.	1	II
n		deonosti	22.16		noun	dat. sg.	1	II
n		uuarhaftj	30.17		noun	acc. sg.	1	II
n		vvidarmuatj	31.01		noun	acc. sg.	1	II
n	ki	sihtj	41.13	*	noun	dat. sg.	1	III
n		lentj	41.18		noun	acc. pl.	1	III
n		deomuatj	44.12		noun	gen. sg.	1	III
n	jn	huctj	45.12		noun	dat. sg.	1	III
n		cotchundi	46.05		noun	gen. sg.	1	III
y		antrejtji	10.04		noun	nom. sg.	1	I
y		hejlantii	21.07		noun	acc. sg.	1	II
y		erhaftii	24.03		noun	acc. sg.	1	II
y		urchundii	30.03		noun	acc. sg.	1	II
y		fruatji	38.02		noun	acc. sg.	1	III
y		ubarmuatji	39.04		noun	gen. sg.	1	III
y		cotchundii	41.13		noun	gen. sg.	1	III

The most noteworthy exception is *erhaftii* in 24.03. There is also a noticeable contrast between *cotchundi* in 46.05 and *cothchundii* in 41.13. In spite of these exceptions we can maintain the possibility that the choice of single vs. double spelling might have to do with the phonological shape of the final syllable.

The following quires show a more complex situation. In the contribution of Scribe 2, which is limited to Quire IV, we only have six examples of *īn*-stem nouns. Only one of those appears with a double writing of the final vowel.

**Table 6.3-3**

V	Pref.	Word	Place		P.o.s.	Form	Sc.	Qu.
n		uzorosti	48.03		noun	dat. sg.	2	IV
y		smahlihii	48.03		noun	dat. sg.	2	IV
n		suuigalj	49.08		noun	acc. sg.	2	IV
n		filusprahhi	49.11		noun	dat. sg.	2	IV
n		fruatj	50.02		noun	dat. sg.	2	IV
n		mittilodi	52.05		noun	dat. sg.	2	IV

The examples with single vowel spelling are cannot be accounted for by referring to the same phonological tendency we observed in the previous quires.

In the contribution of Scribe 3 we have varied use of the double writing. There is only one example out of 22 in Quires IV and V.

**Table 6.3-4**

V	Pref.	Word	Place		P.o.s.	Form	Sc.	Qu.
n		eruuirdi	54.03		noun	dat. sg.	3	IV
n		huueamihij	55.03		noun	nom. sg.	3	IV
n		skemmi	55.05		noun	acc. sg.	3	IV
n	ki	hucti	55.08		noun	gen. sg.	3	IV
n		huueomichij	55.12		noun	dat. sg.	3	IV
n		eruurti	56.08		noun	dat. sg.	3	IV
n		uuihi	57.07		noun	dat. sg.	3	IV
n		ruachalosi	57.17		noun	nom. sg.	3	IV
n	ki	rjhti	58.03		noun	dat. sg.	3	IV
y		uuihii	58.06		noun	nom. pl.	3	IV
n	ki	rjhti	63.12		noun	dat. sg.	3	V
n		rjhti	64.04		noun	dat. sg.	3	V
n		uuihi	64.08	*	noun	nom. sg.	3	V
n		cotchundi	69.03		noun	acc. sg.	3	V
n		luttrj	70.04		noun	gen. sg.	3	V
n		fruati	72.14		noun	dat. sg.	3	V
n		uuidaruuarti	73.06		noun	dat. sg.	3	V
n		armeinsami	73.14		noun	unclear	3	V
n		faruurti	75.09		noun	acc. sg.	3	V

**Table 6.3-4 (continued)**

n		rjhti	76.04		noun	gen. sg.	3	V
n		huassi	77.05		noun	dat. sg.	3	V
n		horski	77.06		noun	dat. sg.	3	V

There is clearly no phonological factor that can be identified here in the same manner as before. We can therefore say that the tendency observed in the first three quires does not seem to apply to the contribution of Scribe 2 and the contribution of Scribe 3 in Quires IV and V.

Scribe 1 is also responsible for the glosses in parts of Quire VI. In his sections we observe roughly the same distribution pattern as in his previous quires.

**Table 6.3-5**

V	Pref.	Word	Place		P.o.s.	Form	Gender	Sc.	Qu.
y		horskii	79.03		noun	acc. pl.	fem.	1	VI
n		theomuatj	80.02		noun	nom. sg.	fem.	1	VI
n		deomuatj	81.12		noun	dat. sg.	fem.	1	VI
n	pi	hucti	82.01		noun	dat. sg.	fem.	1	VI
y		murmulodii	88.04		noun	dat. sg.	fem.	1	VI
n		piderbi	90.04		noun	nom. sg.	fem.	1	VI
y		vnchreftjgii	91.03		noun	nom. sg.	fem.	1	VI
y	ke	mejnsamii	91.14		noun	dat. sg.	fem.	1	VI
y		prejtji	91.16		noun	gen. sg.	fem.	1	VI

The only exception is *piderbi* which we would not expect having a single vowel spelling. It can be mentioned that this example comes from a portion of the text where the glosses are rather fragmentary and is the only gloss found in this particular line. The Latin word being glossed is the noun *usus* ‘use’. It is possible that the form here is not a noun but an adjective ‘useful’ whose regular nom. neuter sg. form would be *piderbi* without a long vowel. This form is independently attested in the text in 99.05. Alternatively we might consider analogical influence on this noun from the adjective.

The remaining part of Quire VI and the initial part of Quire VII is glossed by Scribe 3. Unlike his contribution in Quire IV and V we find numerous examples of double vowel writing here.

**Table 6.3-6**

V	Pref.	Word	Place		P.o.s.	Form	Gender	Sc.	Qu.
n		siuhchi	86.15		noun	nom. sg.	fem.	3	VI
n		bidarbi	86.16		noun	gen. sg.	fem.	3	VI
y		suukilii	92.05		noun	nom. sg.	fem.	3	VI
n		antreiti	93.06		noun	acc. sg.	fem.	3	VI
n		ummahtim	93.12		noun	dat. pl.	fem.	3	VI
y		ubarazalii	94.10		noun	nom. sg.	fem.	3	VI
n	un	fardeuuiti	94.12		noun	nom. sg.	fem.	3	VI
y		ubarazzalii	94.14		noun	nom. sg.	fem.	3	VI
y		ubarazzalii	94.16		noun	nom. sg.	fem.	3	VI
y		mihhilii	94.18		noun	nom. sg.	fem.	3	VI
n	un	chreftigi	95.11		noun	acc. sg.	fem.	3	VII
y	far	traganii	95.14		noun	acc. sg.	fem.	3	VII

There are some patterns that can be observed. Five out of six examples which show double vowel spelling have a common phonological structure in *-lii* and the only exception is another continuant *-nii*. It therefore seems that the use of the double writing follows a system be it different from the one observed in the contribution of Scribe 1 above.

Scribe 1 takes over again in Quire VII and we observe examples of *īn*-stems with both single and double writing of the final vowel.

**Table 6.3-7**

V	Pref.	Word	Place		P.o.s.	Form	Gender	Sc.	Qu.
y		fullji	96.02		noun	nom. sg.	fem.	1	VII
y		ubartrunchanii	96.02		noun	nom. sg.	fem.	1	VII
y		setii	96.08		noun	dat. sg.	fem.	1	VII
n		murmulodin	96.17	*	noun	dat. pl.	fem.	1	VII
y		unmezzigii	97.07		noun	nom. sg.	fem.	1	VII
y		murmulodii	97.17		noun	dat. sg.	fem.	1	VII
n		stilli	98.13		noun	acc. sg.	fem.	1	VII
y		urlaubii	100.01		noun	nom. sg.	fem.	1	VII
y		suuikalii	100.04		noun	gen. sg.	fem.	1	VII
n	ke	rjhtj	100.05		noun	dat. sg.	fem.	1	VII
y		fruatji	100.09		noun	dat. sg.	fem.	1	VII
y		mezhaftji	100.10		noun	dat. sg.	fem.	1	VII
n		fruatj	100.17		noun	dat. sg.	fem.	1	VII
y		vrlaubii	102.13		noun	acc. sg.	fem.	1	VII
n	far	lazzani	102.14		noun	dat. sg.	fem.	1	VII

The tendency we observed earlier is not as strong here. We have a number of forms that do not conform to the *Ct* syllable type, but nonetheless show single spelling of the final vowel, such as the form *stilli*. The form *murmulodin* is corrupt and will be discounted here. Other forms, such as *rjhtj* does demonstrate the tendency and the same can perhaps be said about *fruatj*. At least the latter is in line with the spelling of *muati*. However we have another example here *fruatji* which shows that this word can go both ways. The final example here, *farlazzani*, also does not conform to the rule.

Scribe 3 does not apply the same system we observed before in his subsequent quires. In the remaining part of Quire VII we only have short endings. The distribution pattern in Quire VIII and IX is not very straightforward. It seems to be somewhat random; at least it is unlikely that the use of the double vs. single vowel writing is phonologically conditioned.

Table 6.3-8

V	Pref.	Word	Place		P.o.s.	Form	Gender	Sc.	Qu.
n	ka	nuhctsami	105.06		noun	gen. sg.	fem.	3	VII
n	ka	nuctsami	105.08		noun	gen. sg.	fem.	3	VII
n	ki	rjhti	106.03		noun	dat. sg.	fem.	3	VII
n		ruachalosi	106.05		noun	dat. sg.	fem.	3	VII
n		fruati	108.02		noun	dat. sg.	fem.	3	VII
n		uppigi	108.05		noun	nom. sg.	fem.	3	VII
n		stilli	108.17		noun	dat. sg.	fem.	3	VII
n		alongi	110.15		noun	dat. sg.	fem.	3	VII
n		upigi	111.04		noun	dat. sg.	fem.	3	VIII
n	ki	rjhti	111.09		noun	dat. sg.	fem.	3	VIII
n	un	mahtj	112.05		noun	nom. sg.	fem.	3	VIII
n		lutrj	112.13		noun	gen. sg.	fem.	3	VIII
n		ruachalosi	112.14		noun	acc. pl.	fem.	3	VIII
n		stuncnissi	112.18		noun	dat. sg.	fem.	3	VIII
n		mendi	113.08		noun	dat. sg.	fem.	3	VIII
y		mendii	113.12		noun	dat. sg.	fem.	3	VIII
n		murmolodi	118.07		noun	dat. sg.	fem.	3	VIII
n		uuihi	119.07		noun	dat. sg.	fem.	3	VIII
n		eki	120.09		noun	dat. sg.	fem.	3	VIII
n		hvvealihnessim	120.12	*	noun	dat. pl.	fem.	3	VIII
y		mezlihchii	120.13		noun	dat. sg.	fem.	3	VIII
y		farauuii	121.05		noun	dat. sg.	fem.	3	VIII
y		grozzii	121.05		noun	dat. sg.	fem.	3	VIII
y		suntrjclichii	122.14		noun	gen. sg.	fem.	3	VIII
y		suntrjelihchii	122.18		noun	gen. sg.	fem.	3	VIII
y		nefkirji	125.04		noun	gen. sg.	fem.	3	VIII
n		uuidarmvati	125.14		noun	acc. pl.	fem.	3	VIII
y		dikii	125.18		noun	dat. sg.	fem.	3	VIII
n		horsami	126.09		noun	dat. sg.	fem.	3	VIII
n		statiki	126.12		noun	gen. sg.	fem.	3	VIII
n		antreiti	126.14		noun	acc. sg.	fem.	3	VIII
n		statigi	128.02		noun	dat. sg.	fem.	3	IX
n		horsami	128.03		noun	dat. sg.	fem.	3	IX
n		digi	128.07		noun	acc. sg.	fem.	3	IX
n		digi	130.04		noun	acc. sg.	fem.	3	IX



**Table 6.3-8 (continued)**

y		dikii	130.15		noun	acc. sg.	fem.	3	IX
n		digi	130.18		noun	acc. sg.	fem.	3	IX
n		nvtzi	131.12		noun	acc. sg.	fem.	3	IX
y		ekii	132.10		noun	gen. sg.	fem.	3	IX
n		deomvati	132.18		noun	gen. sg.	fem.	3	IX
y		ervvirdii	133.06		noun	dat. sg.	fem.	3	IX
n		statiki	133.12		noun	dat. sg.	fem.	3	IX
n		statiki	134.09		noun	acc. sg.	fem.	3	IX
y		castluamii	134.11		noun	gen. sg.	fem.	3	IX
y		kastlvamii	134.14		noun	gen. sg.	fem.	3	IX
y		vvenekii	134.18		noun	nom. sg.	fem.	3	IX
y		keilii	136.10		noun	acc. sg.	fem.	3	IX
y		horsamii	136.15		noun	gen. sg.	fem.	3	IX
y		ekii	136.16		noun	acc. sg.	fem.	3	IX
n		ervveliti	137.03		noun	nom. sg.	fem.	3	IX
y		ejnstrjtii	137.15		noun	nom. sg.	fem.	3	IX

We only have one double form in the first part of Quire VIII, *mendii*. Starting on page 120 we have exclusive double vowel forms for about five pages. After that there is a section of text with only short vowel forms with slight interruptions until page 134 where we again find a couple of pages with only double vowel forms. In these three quires there does not seem to be any correlation between the phonological form and the choice of vowel writing in the ending. The clear shift between one form to another might have something to do with changes in spelling of the source manuscript.

The final two quires of the manuscript are glossed by Scribe 1. As before his forms are mainly with a double vowel in the ending but here the exceptions can not be so neatly explained as before.

Table 6.3-9

V	Pref.	Word	Place		P.o.s.	Form	Gender	Sc.	Qu.
n		antrejtjm	138.10		noun	dat. pl.	fem.	1	IX
y	ke	mejnsamii	138.12		noun	dat. sg.	fem.	1	IX
n		uuiridigi	139.08		noun	gen. sg.	fem.	1	IX
y		ejkii	139.10		noun	nom. sg.	fem.	1	IX
y		namahaftii	139.13		noun	dat. sg.	fem.	1	IX
y		eruuirdii	139.18		noun	nom. sg.	fem.	1	IX
y	Jnt	habanii	140.03		noun	dat. sg.	fem.	1	IX
y		vvihii	140.07		noun	acc. sg.	fem.	1	IX
y		spahii	141.09		noun	gen. sg.	fem.	1	IX
n		purdi	142.08		noun	acc. sg.	fem.	1	IX
y		prodii	143.04		noun	acc. sg.	fem.	1	X
n		restj	143.15		noun	nom. sg.	fem.	1	X
y	f	lorinii	146.07	*	noun	acc. sg.	fem.	1	X
n		piderbi	146.18		noun	nom. pl.	fem.	1	X
y		ubarmvatji	147.16	*	noun	dat. sg.	fem.	1	X
y		riifii	148.18		noun	nom. sg.	fem.	1	X
y		mitjuuarii	149.08		noun	dat. sg.	fem.	1	X
n	ke	hucti	150.08		noun	nom. sg.	fem.	1	X

The forms with short ending are *antrejtjm*, *uuiridigi*, *purdi*, *restj*, *piderbi*, *kehucti*. Of those, *restj* and *kehucti* fall under the phonological conditioning factors, which have been discussed. It is possible that *antrejtjm* might be affected by similar process as it has a *t* immediately preceding the ending. It is more likely that the fact that the vowel is not in final position plays a role. We don't have any examples of double vowel writing of forms where the vowel is not in absolute final position. There is really no good way to explain away the remaining three words, *uuiridigi*, *purdi* and *piderbi*. It is noteworthy that here again we have an example of *piderbi* as an apparent exception. The same explanation could apply here as is given above, i.e. a near homophonous adjectival form. The remaining two words have to remain unexplained. It should also be mentioned that there is another problematic form here, namely *namahaftii* which

fulfills the phonological criteria discussed above but nonetheless is written with a double vowel.

The results of our analysis of *īn*-feminines in the text can be summarized as follows. There is a difference between quires and scribes. The spelling of Scribe 1 seems to be phonologically conditioned in Quire I, II, III, and VI and to a lesser extent in Quire VII, IX and X. The spelling of Scribe 3 in Quire IV and V does not indicate phonological conditioning but his spelling in Quire VI indicates correlation between phonological material and choice of ending, but different from Scribe 1. The spelling of Scribe 3 in Quire VII, VIII and IX does not indicate phonological conditioning but the variation that does occur might have something to do with spelling changes in the source manuscript. The occurrences of double vowel spelling for this category in all quires and by all scribes shows us that the spelling of this ending did not follow the same orthographic principles as the spelling of other *ī* or other long vowel endings in general. It is clear that the distributional pattern cannot be directly compared with any other category.<sup>80</sup>

### 6.3.2 *īg*-suffix

The *īg*-suffix is a derivational suffix used to form adjectives. This suffix originates as an adjectival derivative in PIE *\*-ko* which could be formed from *o*-stems, *u*-stems and *i*-stems. The stem vowel became reanalyzed as part of the suffix and as a result we get variant forms *\*-aga*, *\*-uga*, *\*-i/īga* in PG (cf. Krahe/Meid 1969c:190-193). There is indication that in early Germanic there was an alternation between *\*-i/ī* in the vowel of the suffix. In Gothic we have alternation *gabigs* vs. *gabeigs* ‘rich’. It is not clear if this

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<sup>80</sup> Valentin (1969:120) has a different approach to this problem. He looks at the distribution of *i* vs. *ii* with reference to different grammatical categories, i.e. case forms and number. He assumes seven different scribes are responsible for the forms. The results are inconclusive.

alternation was inherited into OHG as well (cf. Krahe/Meid 1969c:191). Evidence from MHG indicates that the vowel was long (Braune/Reiffenstein 2004:66).

The database includes 80 examples of word forms which contain this suffix in the text.

Of those there are 32 found in the relevant quires of Scribe 1.

**Table 6.3-10**

	Pref.	Word	Place		P.o.s.	Form	Mood	Sc.	Qu.
n		euuikemv	8.10		adj.	dat. sg.	masc.	1	I
n		euuic	12.03	*	adj.	nom.sg	neut.	1	I
n		euuigan	13.09		adj.	acc. sg.	masc.	1	I
n		suntjgin	16.18		noun	gen. sg.	masc.	1	II
n		statjge	19.07		adj.	nom. pl.	masc.	1	II
n		vvirdiger	19.15		adj.	nom. sg.	masc.	1	II
n	ke	huctic	20.10		adj.	nom. sg.	neut.	1	II
n		suhtigeem	21.02		adj.	dat. pl.	fem.	1	II
n		dultigeem	24.07		adj.	dat. pl.	masc.	1	II
n		eervvirdigoron	24.15		noun	acc. pl.	masc.	1	II
n		uuidarpirkiga	25.12		adj.	acc. sg.	fem.	1	II
n	pi	huctigeer	27.09		adj.	nom. sg.	masc.	1	II
n		ejnigeru	28.16	*	adj.	dat. sg.	masc.	1	II
y		ejniic	28.18		adj.	nom. sg.	masc.	1	II
n	un	mahtjgan	30.09		adj.	acc. sg.	masc.	1	II
n		euuigan	31.14		adj.	acc. sg.	masc.	1	III
n		statigii	34.07		noun	nom. sg.	fem.	1	III
n		euuigin	34.15		adj.	gen. sg.	masc.	1	III
n		euuigemv	35.14		adj.	dat. sg.	masc.	1	III
n		antfangigaz	37.03		adj.	nom. sg.	neut.	1	III
n		vppigiv	38.12		adj.	acc. pl.	neut.	1	III
n		euuigiv	38.13		adj.	acc. pl.	neut.	1	III
n	ke	huctic	40.18	*	adj.	nom. sg.	neut.	1	III
n		euuigan	41.04		adj.	acc. sg.	masc.	1	III
n	pi	huctigeer	42.05		adj.	nom. sg.	masc.	1	III
n	ke	laubigan	45.17		adj.	acc. sg.	masc.	1	III
n	un	gilaubiger	79.11		adj.	nom. sg.	masc.	1	VI
n		suhtjgaz	79.12		adj.	nom. sg.	neut.	1	VI
n	vn	mahtjgero	81.17		adj.	gen. pl.	masc.	1	VI
n		ejnikemu	83.01		adj.	dat. sg.	masc.	1	VI

**Table 6.3-10 (continued)**

n		ejnigiu	89.17		adj.	nom. sg.	fem.	1	VI
n	un	gilaubiger	79.11		adj.	nom. sg.	masc.	1	VI
n		suhtjgaz	79.12		adj.	nom. sg.	neut.	1	VI
n	vn	mahtjgero	81.17		adj.	gen. pl.	masc.	1	VI

In a large majority of examples the vowel in question occurs in a medial syllable and does not show any double spelling. There are four examples where the vowel in the suffix does not occur in a medial syllable, *euuic* 12.03, *kehuctic* 20.10 and 40.18 and *ejniic* 28.18. The last one shows double writing of the vowel and is thus the only example of such spelling of this suffix we find in the text. All the other examples have only a single vowel in the suffix. Based on this evidence we cannot rule out the existence of short vowel variant of the suffix in OHG. Since the examples with double writing are so few this word does not provide us with good comparative evidence.

### 6.3.3 *īn*-suffix

Under this heading we have only two basic words: the word *truhtīn* ‘lord’ and its derivatives and *ewīn* ‘eternity’ found in a grammaticalized prepositional phrase. Due to the nature of the text there are many examples of the *truhtīn*-words or 58 in the whole text. Since this word was very common it tends to be abbreviated in the manuscript, most commonly as *trh*. Often the stem is totally left out and only the ending is written, e.g. *emu* as a gloss for Latin *domino* stands for *truhtīnemu*. As a result the second vowel in the stem is often not written or in 19 cases out of the 58. The word *truhtīn* and its derivatives, with the vowel in question written out, occur 32 times in the relevant parts of Scribe 1. Many of those are inflected forms where the suffix vowel occurs in medial syllables. There are 12 examples where the vowel occurs in a final syllable:

**Table 6.3-11**

	Pref.	Word	Place		P.o.s.	Form	Mood	Sc.	Qu.
n		<b>truhtj</b> n	12.02	*	noun	nom. sg.	masc.	1	I
n		truhtjn	13.03		noun	nom. sg.	masc.	1	I
n		<b>truhtj</b> n	14.02		noun	nom. sg.	masc.	1	I
n		<b>truhtj</b> n	14.12		noun	nom. sg.	masc.	1	I
n		truhtjn	15.15		noun	nom. sg.	masc.	1	II
n		truhtjn	16.03		noun	nom. sg.	masc.	1	II
n		truhtjn	16.10		noun	nom. sg.	masc.	1	II
n		<b>truhtj</b> n	28.03		noun	nom. sg.	masc.	1	II
n		truhtjn	35.01		noun	nom. sg.	masc.	1	III
n		<b>truhtj</b> n	35.17		noun	nom. sg.	masc.	1	III
n		<b>truhtj</b> n	39.05		noun	nom. sg.	masc.	1	III
n		truhtjn	42.01		noun	nom. sg.	masc.	1	III

Length is never indicated with double writing, even in those examples where the word is not abbreviated. It is thus clear none of the scribes of this text indicated the length of the vowel with a double writing. There are no examples found of either *ii* or *ji* in the second syllable. This could indicate that the vowel had been shortened at the time the manuscript or when its source was written down. It is possible to view the lack of length in this ending in line with phonological tendency discussed above in connection with the spelling of the *ī*-fem forms. As was mentioned there we usually find in the writings of Scribe 1 a single vowel spelling for an etymological long *i* after a cluster of voiceless fricative + *t*.

There are further two examples with the word *ewīn* that occur in the contribution of Scribe 1.

**Table 6.3-12**

	Pref.	Word	Place		P.o.s.	Form	Mood	Sc.	Qu.
n		euu <b>i</b> n	8.14	*	noun	acc. sg.	fem.	1	I
n		euu <b>i</b> n	10.12	*	noun	acc. sg.	fem.	1	I

Neither of these shows double vowel writing as well. Perhaps the reason is that this phrase is grammaticalized in a prepositional phrase used adverbially and might therefore be susceptible to different factors than independent words.

#### 6.3.4 *līh*-suffix

This suffix was used to form adjectives but originates in nominal compounds where the second member was PG *\*-līka-* ‘body’. These compounds were reinterpreted in such a way that the second member became interpreted as a suffix meaning ‘the same as’, e.g. Goth. *ibna-leiks* ‘same, having the same body’. (cf. Krahe/Meid 1969c:226-227). The formation is known throughout Germanic (ibid.). Words that are formed with this suffix are common in our text. All in all we have 247 examples of forms that contain this suffix in the active database. There are 93 examples from the relevant parts of Scribe 1. Of those, 83 show the vowel occurring in a medial syllable and all have a single vowel spelling. The remaining ten examples are listed below.

**Table 6.3-13**

	Pref.	Word	Place		P.o.s.	Form	Mood	Sc.	Qu.
n		munistrjlih	17.10	*	adj.	nom. sg.	neut.	1	II
n		faterlih	20.04		noun/adj	nom. sg.	masc.	1	II
n		eocouuelih	21.01		pron. adj.	nom. sg.	fem.	1	II
n		huueljh	30.04		pron. adj.			1	II
n		antfancjlih	36.08		adj.	unclear		1	III
n		eocouueljh	38.18		pron. adj.	nom. sg.	masc.	1	III
n		eocouuelih	43.09		pron. adj.	nom. sg.	fem.	1	III
n		huueljh	44.13		pron. adj.	nom. sg.	masc.	1	III
n		huuelih	45.04		pron. adj.	nom. sg.	masc.	1	III
n		huueljh	81.09		pron. adj.	nom. sg.	masc.	1	VI

There are no examples of double writing of the vowel in the suffix. The same can be said about the rest of the contribution of Scribe 1 as well as the contribution of Scribe

2 and 3. There is no indication anywhere in the text of a long vowel. We know that this vowel had a tendency to be shortened in later stages of German. This clearly happened in words such as *solih* and *welih* (German *solch-*, *welch-*) where the vowel ends up disappearing (cf. Mensel 1902:43). Similar weakening of the suffix took place in ON where the regular outcome of the adjectival suffix is *-ligr* opposed to the base adjective which is preserved as *(g)likr*.

### 6.3.5 *pilgrim* (loan word)

This is only one word of which there is only one example in the text. The form *pilgrim* 133.14 is from a section of Quire IX glossed by Scribe 3. As we would expect the vowel is written single. Since this scribe does not indicate length in a consistent manner we cannot deduce anything from the spelling about the quantity of the vowel.

### 6.3.6 *Preterite Optatives*

The morphology of the preterite optative is discussed in section 2.3.3.6. There are only seven examples of this category of verb found in our text. Five of those are from the relevant quires of Scribe 1.

**Table 6.3-14**

V		Pref.	Word	Place	P.o.s.	Form	Mood	Sc.	Qu.
i	y	ni	chvriit	12,13	verb	2nd pl. perf.	opt.	1	I
i	y		ejgiit	13,01	verb	2nd pl. pres.	opt.	1	I
i	n		ejgin	23,03	verb	3rd pl. pres.	opt.	1	II
i	n	ni	churit	33,02	verb	2nd pl. perf.	opt.	1	III
i	n	ni	uuizzin	34,18	verb	3rd pl. pres.	opt.	1	III
i	n		ejgin	97,11	verb	3rd pl. pres.	opt.	1	VII
i	n		ejgin	140,17	verb	3rd pl. pres.	opt.	1	IX

Only two examples show double writing of the *i*-vowel in question, *chvriit* 12.13 and *ejgiit* 13.01. It is noteworthy that *churit* also occurs in 33.02 and there it is written with



a single vowel. It is therefore hard to determine what factors are shaping the choice of spelling here, but we should assume that the vowel in question was in fact long.

The forms *ejgiit* 13.01, *ejgin* 23.03 and *uuizzin* 34.18 are actually present optative forms, but since the verbs in question are preterite-present verbs, the morphology is formally that of the preterite optative. It is interesting that a majority of the forms attested here are from such verbs. It should perhaps not be excluded that this category of verbs was susceptible to other factors, e.g. analogy from the present optative of other strong verbs. The small number of examples and the scarceness of double vowel spelling make comparison of this category with other categories difficult.

#### 6.3.7 *wīs-suffix*

This suffix only occurs in one word: *andarwīs* ‘otherwise’. There are four examples of this word in our text but only one of them comes from the relevant quires of Scribe 1, *andarvvis* in 32.17. None of the examples show any indication of the vowel in the suffix being long. Since we are basically only dealing with one potential example, we cannot make any claims about the quantity of the vowel in this particular suffix.

#### 6.3.8 *Comparing ē- and ī-categories*

We have now surveyed the eight categories where we find unaccented *ī*. Four of the categories had only very few examples and further three did not show any, or almost any, alternation between single and double spelling. The largest number of examples belongs to the *īn*-nouns, and here we find an alternation between single and double vowel writing. We observed some phonological conditioning factors that might be relevant in this category. We also observed how this category is different from all other long vowel categories in the texts as double vowel writing occurs in the contribution of all scribes. The lack of single vs. double spelling alternation or small

number of examples in seven of the eight *ī*-categories and the special status of the *īn*-nouns makes any comparison with the *ē*-categories impossible.

## 6.4 Categories with *ō*

### 6.4.1 *lōs*-suffix

The corresponding morpheme to the *lōs*-suffix is found in all Germanic languages. The suffix has its origin in an independent adjective which also exists, OHG *lōs* ‘loose’ from PG *\*laus-* (cf. Orel 2003:239). Early on compounds with this item were interpreted as containing a suffix meaning ‘void of’ or ‘without’.

There are ten examples of this suffix in the text. All the examples are of a single adjective and its derivatives, namely *ruachalōs* ‘neglecting’. This adjective is itself derived from the noun *ruacha* ‘care’ with the *lōs*-suffix. From this adjective we have further derivations such as the fem. *īn*-stem *ruachalōsī* and the *ō*-verb *ruachalōsōn*.

**Table 6.4-1**

	Pref.	Word	Place	P.o.s.	Form	Gender	Sc.	Qu.
n		ruahchalose	24.08	adj.	acc. pl.	masc.	1	II
n		ruahhalosontem	43.03	part. pres.	dat. pl.	masc.	1	III
n		ruachalosi	57.17	noun	nom. sg.	fem.	3	IV
n		ruahchaloso	84.06	adv.			3	VI
n	ke	ruahhalosoot	90.12	pp.			1	VI
n		ruahhalosontem	101.09	part. pres.	dat. pl.	masc.	1	VII
n		ruachalosi	106.05	noun	dat. sg.	fem.	3	VII
n		ruachalosonti	111.15	part. pres.			3	VIII
n		ruachalosi	112.14	noun	acc. pl.	fem.	3	VIII
n		ruachalosom	142.06	verb	3rd pl. pres.	opt.	1	IX

The spelling of all ten examples in the text does not indicate the vowel in the suffix being long. All the examples are from medial syllables. The vowel is never written double in the quires where we would expect double writing.

#### 6.4.2 *ōd-suffix*

There are eleven examples of this suffix in the text. Three of those come from the relevant quires of Scribe 1.

**Table 6.4-2**

	Pref.	Word	Place	P.o.s.	Form	Gender	Sc.	Qu.
n		murmulode	36.11	noun	dat. sg.	masc.	1	III
n		lihhisode	83.01	noun	dat. sg.	masc.	1	VI
n		murmulodii	88.04	noun	dat. sg.	fem.	1	VI

Both examples are medial syllables and neither of the examples shows double vowel spelling of the suffix.

#### 6.4.3 *ōm-ending*

This ending is a dative plural ending of *n*-stem nouns. It is also the dative plural ending of the weak declension of adjectives, which share common properties with the *n*-stems. The vowel of the ending is originally long only in the feminine *ōn*-stems, but has spread through an analogical process to the masculine and neuter *an*-stems (Krahe/Meid 1969b:45 and Figure 1 in 3.6.2.2 above). The feminine *ōn*-stems originate as a special class with inherited lengthened grade of the *n*-suffix or are formed analogically in Germanic to the masc. and neut. *an*-stems, i.e. PG *\*-a- ~ \*-an- = \*-ō- - ~ x*, *x = \*-ōn-* (cf. Bammesberger 1990:171).

We find 84 examples of this ending in the text of which 43 are from the relevant quires of Scribe 1.

**Table 6.4-3**

	Pref.	Word	Place		P.o.s.	Form	Gender	Sc.	Qu.
n		uuilom	11,04		noun	dat. pl.	masc.	1	I
n		augom	12,09		noun	dat. pl.	neut.	1	I
n		oorom	12,10		noun	dat. pl.	masc.	1	I
n		lanchom	14,04		noun	dat. pl.	fem.	1	I
n	ki	haltidom	15,10		noun	dat. pl.	fem.	1	II
y		vvilloom	19,07		noun	dat. pl.	masc.	1	II
n		discom	21,13		noun	dat. pl.	masc.	1	II
y		discoom	21,15		noun	dat. pl.	masc.	1	II
n		ejnfaltlihhero	21,17	*	adj.	dat. pl.	masc.	1	II
y		discoom	22,01		noun	dat. pl.	masc.	1	II
n		ekisom	24,02		noun	dat. pl.	masc.	1	II
y		filloom	25,03		noun	dat. pl.	fem.	1	II
y		slehtjdoom	25,14		noun	dat. pl.	fem.	1	II
y		rafsungoom	25,15		noun	dat. pl.	fem.	1	II
y		rahoom	26,07		noun	dat. pl.	fem.	1	II
y		redinoom	27,08		noun	dat. pl.	fem.	1	II
y		manungoom	27,10		noun	dat. pl.	fem.	1	II
y		discoom	28,10		noun	dat. pl.	masc.	1	II
y		suanoom	29,07		noun	dat. pl.	fem.	1	II
y		piderbidoom	29,10		noun	dat. pl.	fem.	1	II
y		augoom	31,17		noun	dat. pl.	neut.	1	III
y		vvilloom	35,05		noun	dat. pl.	masc.	1	III
y		vvilloom	36,01		noun	dat. pl.	masc.	1	III
y		meriroom	36,13		adj.	dat. pl.	unclear	1	III
y		discoom	36,16		noun	dat. pl.	masc.	1	III
n		sprahhom	37,14		noun	dat. pl.	fem.	1	III
y		discoom	38,01		noun	dat. pl.	masc.	1	III
y		sprahhoom	38,01		noun	dat. pl.	fem.	1	III
n		augom	40,16		noun	dat. pl.	neut.	1	III
y		suntoom	41,03		noun	dat. pl.	fem.	1	III
y		vvilloom	42,12		noun	dat. pl.	masc.	1	III
y		uuilloom	43,05		noun	dat. pl.	masc.	1	III
y		kiridoom	43,06		noun	dat. pl.	fem.	1	III
y		kiridoom	43,13		noun	dat. pl.	fem.	1	III
n		rahhom	45,10		noun	dat. pl.	fem.	1	III

**Table 6.4-3 (continued)**

n		sunton	50,19	*	noun	dat. pl.	fem.	1	IV
y		filloom	80,15		noun	dat. pl.	fem.	1	VI
n		rahhom	83,16		noun	dat. pl.	fem.	1	VI
y		meroom	87,06		adj.	dat. pl.	fem.	1	VI
y		piderboom	87,06	*	noun	dat. pl.	fem.	1	VI
y		discoom	90,14		noun	dat. pl.	masc.	1	VI
n		liblejtom	91,04		noun	dat. pl.	fem.	1	VI
n		santom	91,13		noun	dat. pl.	fem.	1	VI

Here we have many examples of the double writing of the vowel. We do observe some difference distributional patterns of single vs. double writing when we look at the division between quires. In Quire I we have only four examples and all of them are written with a single vowel. It therefore seems that the scribe does not indicate long vowel in the ending in this particular quire. Another possibility is that the vowel was in fact short, i.e. the analogical process of  $\bar{o}$  from the feminine *n*-stems had not been fully completed. The story is different in Quire II. Out of 16 examples we have 12 where the length of the vowel is indicated with a double spelling. The four examples of a single vowel are all from the first part of the quire. One of them, *ejnfaltlihhero*, is corrupt as the final nasal is missing and it's therefore doubtful that this form can be given full credence. The explanation for the preferred single writing of the vowel of the remaining two forms *kihaltidom*, *discom* and *ekisom* is not obvious. The forms do not share any common phonological properties. In fact there is strong evidence against phonological explanation as we find the same word written with single vowel on the one hand and double vowel in very close proximity, i.e. *discom* 21.13, *discoom* 21.15. Proportions in Quire III are the same, i.e. 12 out of 15 are written with a double vowel and three with a single vowel. The single vowel forms are evenly spread throughout the quire. They are *sprahhom* 37.14, *augom* 40.16 and *rahhom*, 45.10. Even though these forms share certain phonological properties it is unlikely that this is the deciding

factor here, although it cannot be ruled out. We have a counterexample *sprahhoom* 31.01 which seems to indicate that the phonological environment does not play a role in the vowel length; at least it is clear we cannot identify a clear tendency for when the vowel is written single and when double.

In Quire IV we have one example of single vowel spelling, which also shows an ending in *-on*. It is likely that this form has been influenced by some secondary processes and since it is the only example from this quire we cannot read too much into it. In Quire VI we have further seven examples by Scribe 1 and four of those show double spelling of the vowel. The three forms with single writing are *liblejtom* 91.04, *santom* 91.13 and *rahhom* 102.02. Again we have the form *rahhom* appearing with a single vowel as it did in Quire III. This is perhaps indicative of a phonological tendency. We might postulate that forms where *h* (or *g*) immediately precedes the vowel it has a tendency to shorten. It is not obvious why a velar consonant would have such a shortening effect on the following vowel. These examples are perhaps only coincidental. However it is clear that this is not the only factor in deciding the spelling of the vowel in the ending as it does not explain most of the short vowel cases. It does however account for two out of five examples in Quire I. There are no further forms with double spellings in the remaining contributions of Scribe 1.

We can then briefly sum up our findings. In Quire I, Scribe 1 does not indicate length and always writes a single vowel in the ending. In Quire II, III and VI he writes the ending consistently long but when a velar precedes it has a tendency to be written with a single vowel. This tendency cannot explain all apparent exceptions. The overall status of the *ōm*-ending, including the number of examples and alternation between single and double vowel spelling, suggests that this category can be used for comparison with the *ē*-endings when looking at the distribution of the variants. We will return to this ending in section 6.4.11.

#### 6.4.4 *ōno-ending*

This ending is a genitive plural ending of *n*-stem nouns. It is also the genitive plural ending of the weak declension of adjectives, which share common properties with the *n*-stems. Like the *ōm*-ending discussed in section 6.4.3 above, the vowel of the ending is originally long only in the feminine *ōn*-stems, but has spread through an analogical process to the other genders (Krahe/Meid 1969b:45 and cf Figure 1 in 3.6.2.2 above).

There are 27 examples of this ending in the active database. Of these there are 14 that come from the relevant quires and are written by Scribe 1. The vowel in question appears in medial syllables and none of the attested forms show the vowel written double. It is not possible to determine from the evidence here whether this category contained a long vowel in the ending in the language of the scribes of our manuscript. As a result this category cannot be directly compared to categories that show alternation of spelling.

#### 6.4.5 *ōst-suffix (deonōst)*

This suffix does only occur in the text in one specific word, *deonōst* ‘service’, and its derivatives. There are ten examples of these words and six of those are from quires where Scribe 1 uses double vowel writing.

**Table 6.4-4**

	Word	Place	P.o.s.	Form	Gender	Sc.	Qu.
n	deonosti	8.17	noun	gen. sg.	fem.	1	I
n	deonosti	22.16	noun	dat. sg.	fem.	1	II
n	deonostes	23.05	noun	gen. sg.	neut.	1	II
n	deonost	34.13	noun	acc. sg.	neut.	1	III
y	deonoostman	90.02	noun	nom. sg.	masc.	1	VI
n	deonostun	90.12	noun	dat. pl.	masc.	1	VI

There is only one of those six examples that shows the actual double writing, i.e. *deonoostman* 90.02. This form occurs in Quire VI. Most of the examples show the vowel in a medial syllable. The word *deonoostman* ‘servant’ is actually a compound word, the second member being *-man* ‘man’. From the face of it the only phonological difference we notice is a potential added weight to the coda of the long vowel syllable, i.e. *-stm-* vs. *-st-*. That would be an environment susceptible to shortening rather than robust attestation of length, so this is unlikely to be relevant here. Furthermore this compound form makes the syllable in question a medial syllable, which we commonly find written with a single vowel. Therefore the spelling with a double vowel is somewhat unexpected. Perhaps the second member of the compound received a strong secondary stress so the syllable in question was not perceived as a regular medial syllable. It is also possible that the scribe wanted to emphasize that the first part of the compound was *deonoost*. The lack of widespread examples makes comparison with other categories difficult.

#### 6.4.6 *ō-verbs*

The *ō-verbs*, or the 2<sup>nd</sup> class of weak verbs, are well attested in all the Germanic languages, (cf. section 2.3.3.3 above). The characteristic *ō-stem* vowel is found in all forms. This is one of the best represented categories in our text, with 205 examples in the active database. Under this heading fall different parts of speech, such as the inflected forms of the verb, infinitives, as well as participles. Table 6.4-5 below has an overview of the 73 examples from the quires where Scribe 1 employs double vowel writing.



**Table 6.4-5**

	Prefix	Word	Place	P.o.s	Form	M/G	Sc.	Qu.
n		muazzot	8.10	verb	3rd sg. pres.	ind.	1	I
n		muazzo*	8.12	verb	3rd sg. pres.	opt.	1	I
n		keros	10.01	verb	2nd sg. pres.	opt.	1	I
n	ke	uuerdonter	11.12	part. pres.	nom. sg.	masc.	1	I
y	zua	manoot	12.11	verb	3rd sg. pres.	ind.	1	I
y		keroot	13.06	verb	3rd sg. pres.	ind.	1	I
n	ke	ladontes	13.18	part. pres.	gen. sg.	masc.	1	I
y		ladoot	14.07	verb	3rd sg. pres.	ind.	1	I
n		vverchontan	15.13	part. pres.	acc. sg.	masc.	1	II
n		mihhilont	15.14	verb	3rd pl. pres.	ind.	1	II
n	ke	ljhhison	16.05	verb	1st sg. pres.	ind.	1	II
n	ke	zimbrota	16.05	verb	3rd sg. perf.	ind.	1	II
y		pejtoot	16.10	verb	3rd sg. pres.	ind.	1	II
n	ke	nuhtsamont	18.05	verb	3rd pl. pres.	ind.	1	II
n	ke	chorote	18.09	part. pret.	nom. pl.	masc.	1	II
n		deononte	18.11	part. pres.	nom. pl.	masc.	1	II
n		suuihhonte	19.06	part. pres.	nom. pl.	masc.	1	II
n		deononte	19.08	part. pres.	nom. pl.	masc.	1	II
n		vnhorsamontj*	20.18	part. pres.	adjective?		1	II
n		suntontemv	22.05	part. pres.	dat. sg.	masc.	1	II
n	er	rahhos	22.06	verb	2nd sg. pres.	ind.	1	II
y	ke	minnoot	22.13	part. pret.			1	II
n		dictontemv	22.18	part. pres.	dat. sg.	masc.	1	II
n	zua	manomees	24.09	verb	1st pl. pres.	ind.	1	II
n		altinoe	24.10	verb	3rd sg. pres.	opt.	1	II
y		deonoon	25.15	verb	infinitive		1	II
n	ke	mahhoe	25.18	verb	3rd sg. pres.	opt.	1	II
n		altinontj	26.04	part. pres.			1	II
n		chlagoe	26.11	verb	3rd sg. pres.	opt.	1	II
n	ke	auhhot	26.14	part. pret.			1	II
n	ke	auhhotj*	27.05	part. pret.			1	II
n		trahtoe	27.18	verb	3rd sg. pres.	opt.	1	II
n		hrivoes	29.13	verb	2nd sg. pres.	opt.	1	II
n		minnonne	29.15	verb	inf.dat.		1	II
n		huaro	30.01	verb	2nd sg. pres.	imp.	1	II

**Table 6.4-5 (continued)**

n		keroes	30.02	verb	2nd sg. pres.	opt.	1	II
y		minnoon	30.08	verb	infinitive		1	II
n		uuison	30.09	verb	infinitive		1	II
n		fluahhonte	31.03	part. pres.	acc. pl.	masc.	1	III
y		minnoon	31.03	verb	infinitive		1	III
n		murmulontan	31.09	part. pres.	acc. sg.	masc.	1	III
y		keroon	31.16	verb	infinitive		1	III
y		minnoon	32.06	verb	infinitive		1	III
y		minnoon	32.08	verb	infinitive		1	III
y		minnoon	33.07	verb	infinitive		1	III
y		minnoon	33.10	verb	infinitive		1	III
y		petoon	33.11	verb	infinitive		1	III
y		minnoon	33.19	verb	infinitive		1	III
y		minnoont	34.04	verb	3rd pl. pres.	ind.	1	III
n		hoorsamonte	36.02	part. pres.	nom. pl.	masc.	1	III
y		minnoot	36.17	verb	3rd sg. pres.	ind.	1	III
y		keroont	36.19	verb	3rd pl. pres.	ind.	1	III
n		murmoloot	37.01	verb	3rd sg. pres.	ind.	1	III
n		murmolontaz	37.04	part. pres.	acc. sg.	neut.	1	III
n		murmolonteru*	37.06	part. pres.	gen. pl.	masc.	1	III
y	ke	deonoot	39.01	part. pret.			1	III
n		scauuontj	41.18	part. pres.			1	III
n		ruahhalosontem	43.03	part. pres.	dat. pl.	masc.	1	III
n		scauuont	43.15	verb	3rd pl. pres.	ind.	1	III
y		pejtoot	44.08	verb	3rd sg. pres.	ind.	1	III
y		minnoot	44.13	verb	3rd sg. pres.	ind.	1	III
y	ke	lustidoot	44.14	part. pret.			1	III
n		lejsanontj	45.05	part. pres.			1	III
y		horsamoontj	45.07	part. pres.			1	III
n	ke	minnota	46.08	verb	3rd sg. perf.	ind.	1	III
y	ke	cheroot	80.02	part. pret.			1	VI
y	anaki	mahhoot	82.16	verb	3rd sg. pres.	ind.	1	VI
y	ent	rahhoot	87.04	part. pret.			1	VI
n	ke	entoteem	88.09	part. pret.	dat. pl.	neut.	1	VI
n	ke	scauuoen	89.11	verb	3rd pl. pres.	opt.	1	VI
n		deononte	89.13	part. pres.	acc. pl.	masc.	1	VI

**Table 6.4-5 (continued)**

n	ke	pezzirote	90.09	part. pret.	nom. pl.	masc.	1	VI
y		ruahhalosoot	90.12	part. pret.			1	VI

There are strong indications of special status of medial syllables, where we consistently find single vowel spelling. We notice that some endings are almost always written with double vowel, such as the endings in *-ōt* and *-ōn*, and to a lesser extent the ending in *-ōnt*. Other endings are consistently written with a single vowel, with only one exception.

Let's look at the data in some more detail. The categories which end in *-ōt* are two: the preterite participle and the third person singular present indicative. The preterite participle forms are thus distributed.

**Table 6.4-6**

	Prefix	Word	Place	P.o.s.	Form	M/G	Sc.	Qu.
y	ke	minnoot	22.13	part. pret.			1	II
n	ke	auhhot	26.14	part. pret.			1	II
n	ke	auhhotj*	27.05	part. pret.			1	II
y	ke	deonoot	39.01	part. pret.			1	III
y	ke	lustidoot	44.14	part. pret.			1	III
y	ke	choroot	80.02	part. pret.			1	VI
y	ent	rahhoot	87.04	part. pret.			1	VI
y	ke	ruahhalosoot	90.12	part. pret.			1	VI

Out of the eight examples listed here six have the ending *-oot*. One of the examples *auhhotj* 27.05 is defective and should be ignored in the discussion here. There is still however a clear example of a single vowel writing in *auhhot* in 26.14.

When we look at the examples of 3<sup>rd</sup> person forms we find a very similar distribution.

**Table 6.4-7**

	Prefix	Word	Place	P.o.s.	Form	M/G	Sc.	Qu.
n		muazzot	8.10	verb	3rd sg. pres.	ind.	1	I
y	zua	manoot	12.11	verb	3rd sg. pres.	ind.	1	I
y		keroot	13.06	verb	3rd sg. pres.	ind.	1	I
y		ladoot	14.07	verb	3rd sg. pres.	ind.	1	I
y		pejtoot	16.10	verb	3rd sg. pres.	ind.	1	II
y		minnoot	36.17	verb	3rd sg. pres.	ind.	1	III
n		murmoloot	37.01	verb	3rd sg. pres.	ind.	1	III
y		pejtoot	44.08	verb	3rd sg. pres.	ind.	1	III
y		minnoot	44.13	verb	3rd sg. pres.	ind.	1	III
y	anaki	mahhoot	82.16	verb	3rd sg. pres.	ind.	1	VI

There are ten examples of this category of words. Nine of those have an ending *-oot*. There is only one clear example with a single vowel spelling, *muazzot* 8.10. We have already mentioned the possibility of short vowels appearing after affricates when discussing the feminine *īn*-stems in Section 6.3.1. This tendency could be at work here as well, but it is even more likely that this is just a random inconsistency.

Another category that shows clear double vowel spelling is the infinitive in *-ōn*. Let's take a closer look at all the examples from this category.

**Table 6.4-8**

	Prefix	Word	Place	P.o.s	Form	Sc.	Qu.
y		deonoon	25.15	verb	infinitive	1	II
n		minnonne	29.15	verb	inf.dat.	1	II
y		minnoon	30.08	verb	infinitive	1	II
n		uuison	30.09	verb	infinitive	1	II
y		minnoon	31.03	verb	infinitive	1	III
y		keroon	31.16	verb	infinitive	1	III
y		minnoon	32.06	verb	infinitive	1	III
y		minnoon	32.08	verb	infinitive	1	III
y		minnoon	33.07	verb	infinitive	1	III
y		minnoon	33.10	verb	infinitive	1	III
y		petoon	33.11	verb	infinitive	1	III
y		minnoon	33.19	verb	infinitive	1	III

We notice a very consistent double vowel spelling in this category. There are two examples with a single vowel spelling; one is the inflected form of the infinitive that adds extra morphology and thus turns the syllable in question into a medial syllable. The other example of single spelling is found in *uuison* 30.09. This apparent exception is not easily explainable.

We also have examples of double vowel spelling in 3<sup>rd</sup> person plural present indicative forms in *-ōnt*. However these do not seem to be as robust as for the other two categories.

**Table 6.4-9**

	Prefix	Word	Place	P.o.s	Form	Sc.		Qu.
n	ke	nuhtsamont	18.05	verb	3rd pl. pres.	ind.	1	II
n		mihhilont	15.14	verb	3rd pl. pres.	ind.	1	II
y		minnoont	34.04	verb	3rd pl. pres.	ind.	1	III
y		keroont	36.19	verb	3rd pl. pres.	ind.	1	III
n		scauuont	43.15	verb	3rd pl. pres.	ind.	1	III

We have two out of five examples showing double vowel writing. It is not immediately clear if there are phonological factors involved here. The spelling of *-ōnt* with a single vowel might suggest that the vowel in closed syllables with two consonants in the coda had a tendency to be shortened. Perhaps the apparent unusual double vowel spelling of a medial syllable, *horsamoontj*, in 45.07, can be accounted for as analogical from the 3<sup>rd</sup> person plural forms. We would expect phonological shortening to have affected this form as well, but a scribe who was used to writing a double vowel in the 3<sup>rd</sup> person plural forms might have done so here as well in a similar phonological (and spelling) context.

The frequency of forms and the robustness of double vowel writing in the *ō*-verbs would suggest that they are well suited to be compared with the distributional pattern

of the *mēs*-ending. However as we can account for the double vs. single vowel spelling by a sound-law we cannot directly compare these categories.

#### 6.4.7 *ōr-comparative*

There were predominantly two suffixes used to form comparative and superlative of the positive form of adjectives and adverbs. The regular comparative suffix is PG \*-iz/is- from PIE \*-is- (cf. Krahe/Meid 1969b:82). The other suffix is PG \*-ōz which can have origin either in the full grade of the PIE suffix PIE \*-iōs- (cf. Braune/Reiffenstein 2004:228) or is analogical from stems in *ō* + the regular suffix \*-iz/is (Krahe/Meid 1969b:83, Bammesberger 1990:232). Both of these suffixes are found in all branches of Germanic. The length of the vowel in OHG is confirmed by the use of circumflex accent in the works of Notker (Braune/Reiffenstein 2004:228).

There are 33 examples of this type in the active database. This morphology affects primarily adjectives and adverbs, but also participles and numerals (only superlative which is used in the formation of some ordinal numbers). Out of the 33 examples there are 11 that come from parts of the text where we expect to find double spelling.

**Table 6.4-10**

	Prefix	Word	Place	P.o.s.	Form	Gender	Sc.	Qu.
n	ke	duunganor	9.03	part. pret.			1	I
n		hartor	24.05	adv.			1	II
n		vurzhaftor	24.10	adv.			1	II
n		eervvirdigoron	24.15	adj.	acc. pl.	masc.	1	II
n		piderborin	28.01	adj.	gen. sg.	neut.	1	II
y		hejlljhhoor	28.09	adv.	nom. sg.	neut.	1	II
n		vvarljhhor	33.04	adv.			1	III
n		tiurorin	34.12	adj.	gen. sg.	masc.	1	III
n		snivmor	35.13	adv.			1	III
n		merorin	45.05	adj.	dat. sg.	masc.	1	III
y		tragoor	90.06	adv.			1	VI

Four of the examples show the vowel occurring in medial syllables. We have seven disyllabic forms with both single and double vowel spelling in the relevant quires of Scribe 1. The two examples of double spelling are *hejlljhhoor* 28.09 and *tragoor* 90.06. These forms have in common that they both have a velar consonant immediately preceding it, but this is hardly can provide a phonological environment which would account for the double spelling. This is even more doubtful when we consider that the environment is exactly the opposite of the tendency discussed in relation to the *ōm*-ending, where we had an increased likelihood of single spelling after a velar consonant. There are other disyllabic examples with velars immediately preceding the vowel in the suffix written single, which suggests that the spelling alternation here is not phonological. The scarcity of examples makes this category not well suited for comparison.

#### 6.4.8 *ōst*-superlative

The origin of this superlative suffix is the same as the comparative suffix discussed in section 6.4.7 above, with the addition of suffix PG *\*-ta-* < PIE *\*-to-*. The superlative is used as the highest stage of comparison of adjectives and adverbs as well as to form ordinals of number over twenty. There are 21 examples of superlatives forms found in the text. Majority of them are numerals from a particular section of Quire IV. It is therefore Scribe 3 which is responsible for the bulk of the forms here. The quires of Scribe 1 which show double spelling of long vowels are only represented by four examples.

**Table 6.4-11**

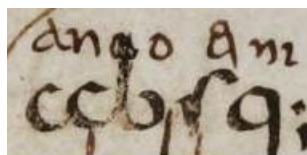
	Prefix	Word	Place	P.o.s.	Form	Gender	Sc.	Qu.
n	ana	stantantlihostin	11.10	adj.	dat. sg.	neut.	1	I
n		ebanostin	29.07	adj.	dat. sg.	masc.	1	II
n		herostono	29.10	adj.	gen. pl.	masc.	1	II
n		heroston	33.09	adj.	acc. pl.	masc.	1	III

All of the examples show the vowel in question in a medial syllable. None of those show any indication of double writing of the vowel. As a result, any comparison with other categories is difficult.

#### 6.4.9 Preposition (*anoo*)

There is only one example of the preposition *anoo* 51.11. It comes from Quire IV from the contribution of Scribe 2, a section of the text where we usually don't find double writing. Etymologically the second vowel is not expected to be long, cf. OS *āno*, Goth. *inu*. The standard form in OHG is *ānu* or *āno*. The reason for this double writing of *o* is therefore to be sought in the circumstances of the copying of the manuscript. Steinmeyer (1916:217) mentions this peculiar form and explains this spelling by contamination of the first *o* with the *b* in the Latin word *absq* (for *absque*): “das erste o war in den oberen Schaft des b von absq; geraten: deshalb wurde das zweite sugesetzt”. The scribe added a second *o* after the first *o* blended in with the *b* of the Latin word. This is clearly visible from Figure 6 below.





**Figure 6:** Photo of the relevant word as it appears in the ms. (Cod. Sang. 916, page 51, Stiftsbibliothek St. Gallen / Codices Electronici Sangallenses).

This example is therefore not an example of a long *o* vowel in the text. It is simply a correction or clarification of a part of the manuscript that is difficult to read. The fact that the vowel is not etymologically long, and the fact that this scribe does not use double spelling to indicate vowel length further corroborates this conclusion.

#### *6.4.10 Weak preterites*

Under the heading weak preterites we have gathered all the examples of the past tense of weak verbs. The text illustrates the special dialectal weak preterite forms, limited to Alemannic. In this dialect of OHG *ō*-vowel is a part of the weak preterite suffix in all the inflected forms. The origin of this *ō* has been claimed to be analogical from the second person singular, which shows an *ō* in the dental preterite ending in all of OHG (Krahe/Meid 1969b:125 cf. 2.3.3.4. above). Other opinions tend to see these Alemannic forms as old relics and thus they feature prominently in some of the alternative theories about the origin of the weak preterite (e.g. Prokosch 1939:195, cf. also Tops 1972). The matter will not be discussed in any detail here. The length is confirmed by the spelling in the works of Notker. There are eighteen examples of these preterites found in the active database and twelve of them are from sections where we find double vowels otherwise written. Further two of those are examples of medial syllables. Only three of the ten remaining examples show double vowel spelling.

**Table 6.4-12**

	Prefix	Word	Place	P.o.s.	Form	Mood	Sc.	Qu.
n	ni	uuolton	12.04	verb	3rd pl. perf.	ind.	1	I
y		platoon	16.07	verb	3rd pl. perf.	ind.	1	II
n	int	frahetomes	17.02	verb	1st pl. perf.	ind.	1	II
n	ke	hortomees	17.03	verb	1st pl. perf.	ind.	1	II
n		lirneton	17.16	verb	3rd pl. perf.	ind.	1	II
n	far	hocton	21.08	verb	3rd pl. perf.	ind.	1	II
n		fietos	22.08	verb	2nd sg. perf.	ind.	1	II
y	ke	suahtoos	46.09	verb	2nd sg. perf.	ind.	1	III
n	er	suahtos	46.10	verb	2nd sg. perf.	ind.	1	III
n	ana	lejttos	46.11	verb	2nd sg. perf.	ind.	1	III
y		saztoos	46.12	verb	2nd sg. perf.	ind.	1	III
n	ana	saztos	46.15	verb	2nd sg. perf.	ind.	1	III

It is difficult to evaluate other possible phonological conditioning factors, besides syllable position, being relevant here. One out of four examples of the 3<sup>rd</sup> person plural forms shows double vowel spelling. Perhaps *ō* had a tendency to be shortened in these forms, possibly under influence from the short *-u-* in the corresponding ending of the strong verbs. The other example of double writing is from a second person singular, *suahtoos* 46.09 which stands in contrast with *suahtos* 46.10 in the following line and *saztoos* 46.12 vs. *saztos* 46.15. The proximity of these two variants makes it difficult to seek a phonological explanation for the single vowel writing. Overall the small number of examples makes comparison with other categories difficult.

#### 6.4.11 Comparing *ē-* and *ō-*categories

We have now surveyed the ten categories where we find unaccented *ō*. Comparison with *lōs*-suffix, *ōd*-suffix, *ōno*-ending and *ōst*-superlative is impossible as these only show occurrences of the relevant vowel in medial syllable and only have single vowel spellings. Comparison is also impossible with the example of *anoo*, which turned out to have a scribal explanation. Of the remaining five categories, the scarcity of

examples rules out any meaningful comparison with the *ōst*-suffix, *ōr*-comparative and weak preterite forms. The remaining two categories, the *ōm*-ending and the *ō*-verbs, which show an alternation between single and double vowel writing, can be compared with the *ē*-examples. When surveying the data for the *ō*-verbs, we found that phonological conditioning factors were relevant in this category. This might obscure the distributional picture and makes comparison with the *ē*-categories difficult. However the distributional pattern of the *ōm*-ending is directly comparable to the numbers discussed in section 5.3. The relevant numbers for this ending are shown in Table 6.4-13.

**Table 6.4-13**

Dative plural ending <i>-ōm</i>					
	Frequency				Total
Position	oo	%	o	%	oo & o
<i>Quire I</i>	0	0.00%	4	100.00%	4
<i>Quire II</i>	12	75.00%	4	25.00%	16
<i>Quire III</i>	12	80.00%	3	20.00%	15
<i>Quire IV</i>	0	0.00%	1	100.00%	1
<i>Quire VI</i>	4	57.14%	3	42.86%	7

When we look at the distributional pattern for the *ōm*-ending we notice that there are no examples of double vowel spelling in Quire I. This is similar to the tendency observed for the *mēs*-ending and the *ēr*-ending, but we should keep in mind that the examples here are very few. We also notice that the proportion of double vowel spelling in Quire II is very high. This is different from the pattern observed for the *mēs*- and *ēr*-ending, but very similar to the pattern observed for the *ēm*-ending. The proportions from Quire VI are also very similar here as the ones we observed for the *ēm*-ending, but again the examples are not very many.

On the whole the comparison between these categories renders mixed results, but we can still maintain that the distributional pattern of this category is different from the

distributional pattern observed for the *mēs*-ending. As a result hypothesis (6) still holds.

## 6.5 Categories with *ū*

### 6.5.1 Prefixes (*ūz* and *ūf*)

In the active database there are 19 examples of prefixes which contain a long vowel. These prefixes are only two, *ūf*- and *ūz*-. None of the examples of either prefix show double writing of the vowel. Of those 19 examples seven are found in sections written by Scribe 1 where he consistently denotes the length of the vowel through double writing.

**Table 6.5-1**

Prefix	Word	Place	P.o.s.	Form	Mood	Sc.	Qu.
vf	stejc	34.03	verb	3rd sg. perf.	ind.	1	III
ufer	haban	39.16	pp.			1	III
vf	stiganteem	39.18	part. pres.	dat. pl.	masc.	1	III
vf	stigante	40.02	part. pres.	nom. pl.	masc.	1	III
vf	stigan	40.07	verb	infinitive		1	III
vf	stiganteem	40.14	part. pres.	dat. pl.	masc.	1	III
uz-ki	kanganer	87.08	pp.	nom. sg.	masc.	1	VI

It is possible that the unaccented position of these prefixes attributed to the loss of the vowel length. It is also possible that the explanation should be sought in the more general tendency to avoid double writing of *u*, cf. 6.5.4.

### 6.5.2 *ū*-ending

One of the best attested grammatical categories in the text are the so called *ū*-endings. This label is a short hand for accusative, dative and genitive singular and nominative and accusative plural case endings in *-ūn* of feminine *n*-stems nouns and weak

adjectives. These endings probably originate in older *\*-ōn*, which was the formant of the feminine *n*-stems (cf. discussion in 6.4.3 above), but show a development of unstressed *ō > ū* before *n* in closed syllables Prokosch (1939:253).

Overview of the endings: There are 139 examples of these endings in the active database. Of those 139 examples there are 48 from parts of the text where Scribe 1 uses double writing. However there are only four or possibly five examples where the vowel is denoted by double *uu* or *vv*.

**Table 6.5-2**

	Word	Place		P.o.s.	Form	Gender	Sc.	Qu.
n	truhtjnlhhun	8.17		adj.	gen. sg.	fem.	1	I
n	rediun	9.04		noun	dat. sg.	fem.	1	I
n	forahtun	9.07		noun	dat. sg.	fem.	1	I
n	altun	10.03		adj.	gen. sg.	fem.	1	I
n	niuun	10.03		adj.	gen. sg.	fem.	1	I
n	forahtun	12.17		noun	acc. sg.	fem.	1	I
n	zungun	13.09		noun	dat. sg.	fem.	1	I
n	seljdun	14.13		noun	dat. sg.	fem.	1	I
n	zungun	15.02		noun	dat. sg.	fem.	1	II
n	hrivvvn	16.16		noun	dat. sg.	fem.	1	II
n	fehtvn	18.01		noun	dat. sg.	fem.	1	II
y	cheluun	19.07		noun	gen. sg.	fem.	1	II
n	eristun	24.18		adj.	dat. sg.	fem.	1	II
n	soragun	26.07		noun	acc. sg.	fem.	1	II
n	rediun	26.10		noun	acc. sg.	fem.	1	II
n	minnirun	26.11		adj.	dat. sg.	fem.	1	II
n	rediun	26.18		noun	dat. sg.	fem.	1	II
n	rediun	27.05		noun	acc. sg.	fem.	1	II
n	mejstrun	28.14		adj.	dat. sg.	fem.	1	II
n	rehtlihhun	29.03		adj.	dat. sg.	fem.	1	II
n	forahtun	29.04		noun	dat. sg.	fem.	1	II
n	rediun	29.08		noun	acc. sg.	fem.	1	II
n	fastun	30.07		noun	acc. sg.	fem.	1	II
n	vvelun*	30.07	*	noun	dat. pl.	fem.	1	II
n	aatumljhhvn	31.15		adj.	dat. sg.	fem.	1	III

**Table 6.5-2 (continued)**

n	lectjun	32.08		noun	acc. pl.	fem.	1	III
y	sunnuun	33.11		noun	gen. sg.	fem.	1	III
n	atumlihvn	33.14		adj.	gen. sg.	fem.	1	III
n	forahtun	34.14		noun	acc. sg.	fem.	1	III
n	forahtun	35.12		noun	gen. sg.	fem.	1	III
n	zungun	37.11		noun	dat. sg.	fem.	1	III
n	zungun	38.06		noun	gen. sg.	fem.	1	III
n	furistun	38.10		noun	dat. sg.	fem.	1	III
n	furjstun	39.12		noun	gen. sg.	fem.	1	III
n	forahtun	40.16		noun	acc. sg.	fem.	1	III
n	zungun	41.07		noun	gen. sg.	fem.	1	III
n	suuigentun	45.11		part. pres.	dat. sg.	fem.	1	III
n	tunihhun	47.01		noun	dat. sg.	fem.	1	IV
n	lungistun	80.01		adj.	dat. sg.	fem.	1	VI
n	ruahhvn	81.06		noun	acc. sg.	fem.	1	VI
n	redun	82.03		noun	acc. sg.	fem.	1	VI
y	pezzistuun	82.15		adj.	acc.sg	fem.	1	VI
n	ruaahhun	82.17		noun	dat. sg.	fem.	1	VI
y	cotchvndvvn	83.03		adj.	gen. sg.	fem.	1	VI
n	pidarbun	83.18		adj.	gen. sg.	fem.	1	VI
n	forahtun	89.07		noun	dat. sg.	fem.	1	VI
n	mejstun	90.11		adj.	acc. sg.	fem.	1	VI
n	chirihhun	91.17		noun	dat. sg.	fem.	1	VI

Four of the examples are fairly certain, namely *cheluun* 19.07, *sunnuun* 33.11, *pezzistuun*, 82.15 and *cotchvndvvn* 83.03. The ambiguous form is *hrivvvn* 16.16 which is best interpreted as representing *hriwun* (so it is not really an example of double vowel writing). It is tagged in the database as an example of single writing.

There is really no phonological factor that sets these four double vowel examples apart from the single vowel examples. It is hard to identify any other processes that might be involved here. The words with double spelling belongs to a different part of speech, although three are genitive forms. On the whole the reason why exactly these four forms are spelled with a double vowel remains unclear.

### 6.5.3 *sichūr*

There are three example of this word in the text. Two are from the early quires of Scribe 1.

**Table 6.5-3**

	Word	Place		P.o.s.	Form	Gender	Sc.	Qu.
n	sihhure	18.02		adj.	nom. pl.	masc.	1	II
n	sihhure	46.04		adj.	nom. pl.	masc.	1	III

Both of the relevant forms have the vowel in question occurring in medial syllable. None of the examples have any indication of the *u*-vowel being long. Since the examples are so few, no further conclusions can be drawn.

### 6.5.4 *General about uu for ū*

We notice that the double writing *uu* for *ū* is almost non-existent in this manuscript and much less robust than for any other long vowel. Perhaps the reason for this lies in the orthographic tradition. The double writing of *u* or *v* is common in OHG, both in this text and others, but is mainly reserved for the denotation of the bilabial glide *w* (cf. Braune/Reiffenstein 2004:107). This could affect the usage of double writing in general to represent this particular vowel and is a factor that needs to be taken into consideration when discussing the writing of a *ū*-vowel. The scribe might have been hesitant to use such an ambiguous sign and thus avoided denoting the vowel length by means of double writing. It therefore seems that different factors are at play when it comes to the spelling of this vowel and we cannot directly compare it with the spelling of other long vowels.

### 6.5.5 *Comparing ē- and ū-categories*

The lack of significant number of examples along with possible spelling issues makes any meaningful comparison between ū-categories and ē-categories impossible.

## 6.6 **Compounds**

The only category not covered so far is the one labeled “Compounds”. The spelling of these words are not directly comparable with the regular non-root long vowel categories as the forms here have a different morphological origin and are shaped by different morphological factors. They are included in the discussion here for the sake of completeness but are not useable in our endeavor to test the validity of the hypotheses set forth in section 4.8.1 above.

All in all there are 69 examples marked in the active database as belonging to this group. Those are loosely defined as words whose stem consists of more than one morpheme. As a result a stem or a root occurs in a non primary-stress (usually non-initial) position and is therefore labeled as unaccented in the database. However the relevant morpheme is well known to be accented in other contexts and therefore not susceptible to the same rules of accent as morphemes which never receive primary stress, such as endings and suffixes. At least it is clear that such compounds were not susceptible to weakening or shortening in medial syllables in the same fashion as uncompounded word forms (Braune/Reiffenstein 2004:65). The words grouped together under this heading are very diverse as they do not share any formal properties. Out of these 69 examples 26 are found in the relevant quires of Scribe 1. There are only three examples where vowel length is indicated and interestingly are all found in Quire III. The table shows the distribution of these words and the syllables with a double vowel are bolded.



**Table 6.6-1**

Word	Place		P.o.s.	Form	Gender	Sc.	Qu.
ebanlozzon	9.17		adj.	nom. pl.	masc.	1	I
antfrahidu	14.15		noun	dat. sg.	fem.	1	I
itvviz	15.04		noun	acc. sg.	masc.	1	II
soso	15.16		adv.			1	II
erlosos	16.08		adv.			1	II
antlazza	16.14		noun	acc. pl.	masc.	1	II
lihhisarro	18.08		noun	gen. pl.	masc.	1	II
soso	18.09		adv.			1	II
ljhhisarum	19.09		noun	dat. pl.	masc.	1	II
mitivvareem	24.06		adj.	dat. pl.	masc.	1	II
odhuuila	26.12		adv.			1	II
soso	29.17		adv.			1	II
odhuuila	30.17		adv.			1	II
samaso	34.16		adv.			1	III
kaganhorjdu	35.01		noun	dat. sg.	fem.	1	III
stunthuulu	35.10		noun	dat. sg.	fem.	1	III
soso	39.10		adv.			1	III
<b>itloon</b>	39.11		noun	nom. sg.	masc./neut.	1	III
nidarstic	40.04		noun	nom. sg.	masc.	1	III
vfstic	40.04		noun	nom. sg.	masc.	1	III
<b>itloones</b>	46.05		noun	gen. sg.	masc./neut.	1	III
soso	46.10		adv.			1	III
missitaat	47.15		noun	acc. sg.	fem.	1	IV
soso	81.06		adv.			1	VI
odhuuila	81.10		adv.			1	VI
odhuuila	91.09		adv.			1	VI

The lack of double writing in these compounds is perhaps not that surprising. We might expect the proportions of double writing in these items to be similar to the proportion of double writing in pure root syllables. As has been mentioned the lack of double writing for etymologically long root vowels is very common and the

proportions of where such spelling is found are much lower than in unaccented syllables. The three words are shown in Table 6.6-2:

**Table 6.6-2**

V	Word	Place	P.o.s.	Form	Gender	Sc.	Qu.
o	<b>itloon</b>	39,11	noun	nom. sg.	masc./neut.	1	III
o	<b>itloones</b>	46,05	noun	gen. sg.	masc./neut.	1	III
a	<b>missitaat</b>	47,15	noun	acc. sg.	fem.	1	IV

We have two examples of the word *itloon* and both show double writing of the second member *-loon*, even when it occurs in medial syllable. This word also exists as an independent word and even occurs as such in the text: 10.11 and 86.17. In all these cases the word is consistently written with a double *oo*. The word *missitaat* also found here shows double writing of the long *ā*-vowel in the second member of the compound. We find this vowel commonly written double in root syllables in related words, cf. *kitaat* 31.17.

All in all we can say that these few examples are not very good indicators of long vowels in unaccented syllables. The first member of all these compounds is not an independent word. The second part is regularly attested as an independent monosyllabic word and as such must always be stressed. Therefore it is hard to say anything concrete about the stress pattern of these words. Perhaps the first member was only lightly stressed or even unstressed. At least it is clear that if and when a second member of such a compound showed a tendency to drift away from the stress level and vowel quality of the uncompounded form it must have been continuously influenced by the independent word and thus not very susceptible to change.

We have now surveyed all the potential categories where we find a long vowel in unaccented syllables. Our starting point was the 1<sup>st</sup> person plural ending *-mēs* and its distributional pattern. We compared the distributional pattern with the distributional

pattern found for other  $\bar{e}$ -categories. We found that this distributional pattern was similar to the distributional pattern of  $\bar{e}r$ -ending of adjectives, but different from the  $\bar{e}m$ -ending of adjectives. We also compared the distributional pattern of the  $m\bar{e}s$ -ending with the distributional pattern of other long vowel categories. We found that in most cases such comparison was difficult due to phonological factors or small number of examples. Comparison with  $\bar{o}m$ -ending further illustrated different distributional patterns. The result is that both hypotheses (5) and (6) appear to hold:

(5) *The distributional pattern of 1<sup>st</sup> person plural ending -mēs is different from comparable categories with a clear historical  $\bar{e}$ .*

(6) *The distribution pattern of the ending -mēs is different from the comparable categories with all other long vowels.*

## 6.7 Reevaluating hypothesis (7)

The comparison of the distributional patterns indicates that hypothesis (7) is also viable. This hypothesis was thus stated in section 4.8.1: (7) *The distributional facts of the ending -mēs indicate that the long vowel is secondary and the more original form of the ending is a short vowel form -mes.* Testing the validity of this hypothesis is based on our conclusion that the double vowel writing in the manuscript stems not from Scribe 1, but from the text he was copying. We have furthermore postulated that there was a variation in double vowel spelling of long vowels in the source manuscript. We concluded that this source manuscript was also divided up into quires, correlating with the quires found in its copy, Cod. Sang. 916 and that Quires I, II, III, IV and VI had predominantly double vowel spelling. The results of our investigation indicates that the spelling of long vowels in Quire I did not follow the same pattern as the spelling of long vowels in later quires. Here we find that some long vowel words that occur in this quire do not have any examples with double vowel spelling. Two

prominent categories where such a lack of length denotation occurs are the 1<sup>st</sup> person plural *mēs*-ending and the *ēr*-ending of nom. sg. masc. adjectives. Both of these categories have in common that the long vowel of the ending is not easily accounted for and has a rather unclear origin. We therefore may assume that in the language of the glossator or scribe of this quire in the source manuscript, the vowel in these categories was not long, but short. At the same time it is clear that the vowel of these endings does also occurs long, as is evident from the spelling of subsequent quires.

The question remains which spelling pattern represents the earlier state of affairs, i.e. which quire demonstrates more archaic spelling. Does the spelling of Quire I indicate that an original long vowel had been shortened or does the spelling of subsequent quires show that an original short vowel has been lengthened? It is hard to answer these questions with any certainty. There are some indication that we can say point to the direction of the short vowel representing the oldest form of the ending. The fact that the short vowel spelling in Quire I is limited to certain categories indicates that the spelling of this quire represents a more archaic situation. It is not very desirable to assume a category-specific shortening rule, which we would have to do to account for the difference between categories.

Our survey of the OHG evidence revealed some additional evidence that seem to support the validity of hypothesis (7). Two of the alternative by-forms to OHG *-mēs* found in a handful of texts showed that the ending could be realized as *-mas* or *-mus*. In the case of the instances of *-mas* we found other examples where short *a* and *e* were confused. This indicates that the vowel of the ending was also short. The two items were only different in quality but not quantity, and might have been losing their intensity and approaching a more middle quality. If we interpret the alteration between *-mēs* and *-mus* in other texts as further examples of two vowels of the same quantity losing some of their intensity we can consider that further support for the short vowel

in the ending. These texts indicate that the confusion was not between *-mēs* and *-mas*, or *-mus* but between *-mes* and *-mas* or *-mus*.

Although the validity of hypothesis (7) remains somewhat uncertain we have not come up with any evidence that proves this hypothesis to be wrong. Furthermore we have pointed out some additional evidence that could be interpreted as supporting this hypothesis. Our conclusion is that hypothesis (7) is valid and can be maintained.

## 7 Conclusions

### 7.1.1 Retracing the path

We are now getting closer to the end of the story that started by asking a simple question: Why is the vowel in the 1<sup>st</sup> person plural ending *-mēs* in OHG presumed to have been long? In order to answer this question we have had to go through a process where each step has brought us closer to answering the initial question. It is fitting to recap the journey so far. After the introductory section one, we discussed in section two the necessary background information about the Germanic verb system and established its origin in PIE. Our conclusion was that the Germanic verb system is derived from a stage of PIE that included all the major reconstructed categories but has undergone radical restructuring. In section three we discussed the 1<sup>st</sup> person plural in particular and established that the inventory of PIE included two endings in the present/aorist category, i.e. primary ending *\*-mes* and a secondary ending *\*-me* which were both inherited in Germanic. We concluded that an alternative ending, *\*-men*, probably did not exist in PIE and is not necessary for the reconstruction of the Germanic endings. In this section we also discussed the 1<sup>st</sup> person plural forms in Germanic and showed that all instances of 1<sup>st</sup> person plural endings in North and East Germanic can be accounted for with reference to the two PIE endings. We furthermore discussed the distribution of the OHG ending *-mēs* and acknowledged the problem of deriving *-mēs* from the established PG endings and concluded that all attempts in explaining this ending were insufficient in some regard. We also looked at the distribution of the ending in some OHG texts and concluded that the ending originated in the present indicative. We furthermore argued that some cases of odd 1<sup>st</sup> person plural endings in OHG could be explained as secondary developments. We also

showed how a review of the philological evidence from Cod. Sang. 916 was necessary in order to answer the question about the length of the vowel of the ending. In section four we accounted for the manuscript and its problematic origin and established the need for undertaking a thorough analysis of all the philological material based on the latest ideas about the division in the manuscript between scribes and quires. We established the research criteria and set forth a series of hypotheses intended to be evaluated by the result of the analysis. The building of the database was described and problematic forms were reviewed and we argued for the inclusion or exclusion from the database. In section five we discussed the results of the analysis as it pertained to contribution of scribes as well as discussing the results for categories with *ē*-vowel. We evaluated four of the hypotheses and concluded that the *mēs*-ending showed distinctive distributional pattern. Finally, section six included a further comparison with other long vowel categories which further illustrated the difference between the *mēs*-ending and other comparable items. We evaluated the remaining hypotheses and concluded that they were valid.

### *7.1.2 The hypotheses*

It is worth while to emphasize here the main conclusions of our investigation into the philological evidence from Cod. Sang. 916. In section 4.8.1 we put forth a series of hypotheses, which we evaluated in subsequent sections and slightly restated to take into consideration some of the conclusions from the data analysis. The main conclusion of this investigation is that we find all the hypotheses to be valid, except for hypothesis (2) which we replaced with hypotheses (2a) and (2b). The revised formulation of the hypotheses is shown here:

- (1) *All double vowel writing in the manuscript, besides final -ee, indicates a historical long vowel and thus should be interpreted as indicative of vowel length.*
- (2) *The double writing is only found in the contribution of Scribe 1 and therefore must originate from Scribe 1.*
- (2a) *The double writing of Scribe 1 is inconsistent and only found in particular sections and therefore must originate in the orthography of the source manuscript.*
- (2b) *The lack of double writing of Scribe 2 and Scribe 3 is consistent and must be attributed to the lack of detail in their copying.*
- (3) *The division of sections of text that do show double vowel writing and those that do not correlates with the division between quires.*
- (4) *There is a difference between non-root and root syllables with regard to stress which is reflected in the double vowel writing in the manuscript.*
- (5) *The distributional pattern of 1<sup>st</sup> person plural ending -mēs is different from comparable categories with a clear historical ē.*
- (6) *The distribution pattern of the ending -mēs is different from the comparable categories with all other long vowels.*
- (7) *The distributional facts of the ending -mēs indicate that the long vowel is secondary and the more original form of the ending is a short vowel form -mes.*

We can now answer the initial simple question. Why is the vowel of the ending assumed to have been long? Our conclusions point to the following answer: There is really not very good evidence for this assumption. The vowel was not long in all cases, at least not for all speakers and perhaps not originally. We can only say for certain that the vowel of the ending was long in some variants of Alemannic as its only secure attestation would be from a few quires in a single manuscript. All other instances of *-mes* found in the various OHG manuscripts, which do not indicate vowel length, could be interpreted as instances of a phonologically short vowel ending.

We have discovered that the evidence for the long vowel is not very strong and based on rather limited data. We can now proceed to the concluding phase of our



investigation, which is revisiting the various theories about the origin of the ending. We will weigh the premise of those theories against the evidence we have uncovered when looking at philological evidence from Cod. Sang. 916 and consider a possible short vowel origin of the ending.

## 7.2 Revisiting older theories

The main conclusion of our investigation is that there existed two variant forms of the long 1<sup>st</sup> person plural ending in OHG, i.e. *-mes* and *-mēs*. The question which one of them reflects a more original state of affairs is difficult to answer for certain. We have two options: either an original short ending was lengthened secondarily or an original long ending was shortened. When evaluating hypothesis (7) we argued that the short ending reflected an earlier state of affairs, although our evidence was not very strong. It cannot be ruled out that it actually was the other way around, i.e. the long vowel of the ending being more original and the short vowel a result of some secondary process.

If we maintain the long vowel form to be the oldest, as has been the assumption of all previous scholars, we have many different theories to choose from. This is obvious from our discussion in section 3.6, where we reviewed these theories, which all share the basic premise that the vowel of the ending was originally long. Our review of these theories did reveal that many of them are difficult to reconcile with the reconstructed verb system of Germanic and the reconstructed verb system of PIE, which we have taken as the ultimate source of the phonological and morphological material we have at our disposal. Others had some other deficiency, which we found undesirable. We will now revisit these theories and to recap their insufficiencies and reevaluate them in light of the result of the investigation undertaken in sections 5 and 6. We would like to see what effect our hypothesis of a short vowel form being a more archaic form of the

ending might have on these theories and to see whether it can bring any further insight into its origin and development.

### 7.2.1 *Early attempts revisited*

Under this heading fall various theories from the 19<sup>th</sup> and early 20<sup>th</sup> centuries. The first one we discussed was the theory of Grimm (1819:856). He wanted to derive the endings from old *\*-aimas* and *\*-eimas*. These reconstructions are not viable in light of the PIE inventory we take as a starting point. Loewe (1911:100) assumed that the OHG ending derived from a PIE lengthened grade, namely PIE *\*-mēs*. We have established that such an ending was not a part of the PIE inventory, in addition to our fundamental problem with the concept of a lengthened grade of an ending. The same can be said about the lengthened grade ending of Mausser (1933:1010). The main problem with these ideas is that there is no independent evidence for PIE ending *\*-mēs*. These theories also assume that final *s* was preserved in West-Germanic, but as we have established final *-s* became *-z* already in Proto-Germanic. This last problem can be avoided by tracing the ending back to proto-ending *-mēsi*, which can simply be described as *mēs* + the deictic particle *-i* as is done by Wilmanns (1906:7), who wanted to link together the OHG and the Old Irish ending *-mi*. This OIr. ending could theoretically go back to PIE *\*-mēsi* but could also go back to a more regular ending *-mesi* (i.e. the expected ablaut grade + deictic *i*). Although this theory is a slight improvement upon the previous one it still assumes a problematic ending *-mēsi* for which we have no support from elsewhere in Indo-European languages.

It is interesting to look at the theory of Wilmanns in light of the results of this investigation. If indeed the OHG ending originally had a short vowel it might be related to this OIr. ending *-m* from PIE *\*-mesi*. The attempts of Scherer (1868) to trace the OHG ending back to PIE *\*-mansī* or *\*-mensī* do not have any support in other

Indo-European languages and are also irreconcilable with the PIE inventory we have established. The results of our investigation do not call into question our conclusion to dismiss these early attempts of reconstruction potential ancestors of the OHG ending. We are reminded however, that PIE *\*-mesi* is possibly relevant.

### *7.2.2 More recent attempts revisited*

Under the heading more recent attempts we discussed five theories in some detail. These were the theories of Roberts' middle paradigm; Krahe's Indo-European inheritance; Bech's OHG analogical scenario; Prokosch's, Hollifield's and Boutkan's incorporated personal pronoun theory; and Shields' multiple plural marker account. We can now reflect upon these theories to see if the results of our investigation might cause us to reevaluate them.

#### *7.2.2.1 Roberts' middle paradigm revisited*

This theory traces the origin of the OHG ending *-mēs* back to a PIE middle ending *\*-mēsai* or *\*-maisai*. The alleged origin of these preforms are in an alternative middle or medio-passive verb conjugational paradigm which is otherwise not attested. The theory seems tailored to explain the OHG ending and is totally unsupported by any comparative evidence. The reconstructed preforms of Roberts are not compatible with any standard (or non-standard) reconstructions of PIE and cannot be maintained.

A short vowel origin of the ending does not fit into the scenario set out by Roberts, although his alternative middle conjugation can probably be remodeled to accommodate such a preform. Since the whole idea of an entire new grammatical category to account for this OHG verb ending is quite far-fetched, it is not worth exploring further with the results of our investigation in mind.

#### 7.2.2.2 *Indo-European inheritance revisited*

Under this heading we discussed the theory of Krahe (1957) which is based on an idea of Brugman (1904). The basic notion here is that the OHG ending is a result of contamination process of two PG endings, these being *\*-mes* from PIE *\*-mes* and *\*-mē* from PIE *\*-me*, which had been lengthened. The lengthening of the secondary ending is difficult to account for in light of the reconstructed inventory of endings laid out in section 2. As we also pointed out it is difficult to account for PG *\*-mes* as a direct descendant of PIE *\*-mes*. We must assume that some secondary processes were involved as we expect *-s* to develop to *-z* word finally. Other problems were discussed in relation to the mix of the endings, i.e. the difficulty of accounting for it as a formal analogical process.

It is interesting to look at some aspects of this theory in light of the results of our investigation. A prominent presupposition of the scenario set forth by Krahe is that there existed a PG ending *\*-mes*. If we are able to reconstruct a PG ending *\*-mes*, such an ending would be a potential antecedent of an OHG ending *-mes* but the origin of this ending must be different from what Krahe (1957) imagines, i.e. it cannot be traced directly to a PIE *\*-mes*. If the OHG ending originally had a short vowel and that was secondarily lengthened, we have no need for the other ending *-mē*, to explain the situation in OHG. We will discuss possible origins of OHG *-mes* in section 7.3 below.

#### 7.2.2.3 *OHG analogy revisited*

Under the heading OHG analogy (3.6.2.3) we discussed the theory of Bech (1962), who looked for an explanation of the ending within the structure of OHG itself. According to this view the 1<sup>st</sup> person plural ending was a result of analogical remodeling based on the second person plural, subjunctives/imperatives.

The basic advantages of this approach is we get rid of all the PIE problems. We don't have to look for preforms of obscure origins. It also explains the lack of comparative evidence in other Germanic languages. The starting point is the inherited ending *-m*, likely PG *\*-mez/miz* from PIE *\*-mes*, which then receives some extra morphology. The long vowel ending is thus an OHG phenomenon and a creation of an analogical process in that language. It is appealing to seek an OHG solution to what appears to be an OHG problem.

This model is the most promising of all the different theories discussed so far. The analogical scenario Bech suggests can be formalized in a rather neat way as a simple proportional analogical process. The analogical formulation is given again in Figure 7 below.

	<b>Sg.</b>	<b>Pl.</b>
imp.	<i>bint</i>	<i>bintum</i>
opt	<i>bintēs</i>	<i>x</i>
		<i>x=bintumēs</i>

**Figure 7:** Analogy of the 1<sup>st</sup> person plural ending.

If we assume that this process explains the origin of the ending we will have to consider additional processes to account for the situation in our manuscript where the short vowel variant form of the ending is prominent. The easiest way to do that is to assume a phonological shortening process whereby the ending *-mēs* became *-mes*, although the conditions of this process are not immediately obvious. We will return to this matter in section 7.3.5.1.

It is clear that we cannot assume the same kind of analogical process with the result being a short vowel ending. The second person singular vowel was undoubtedly long. Alternative source for a remodeled ending *-mes* is difficult to come by within the

verbal system of OHG. At least it is clear that any alternative remodeling cannot be based on the same premise as Bech's theory.

#### 7.2.2.4 *Enclitic pronoun revisited*

The basic idea here is that the ending somehow incorporates a personal pronoun. There are a few versions of this theory that were discussed in section 3.6.2.4. Prokosch (1939:212) assumes a univerbation of the verb ending and the following enclitic personal pronoun and gives the example of *bhèndhomos* + *wéis* > *bìndama(zw)ǣ̃*. There are some phonological problems involved which result in the later modifications of Hollifield (1980) who prefers the secondary ending PIE *\*-me/-mo* and accordingly reconstructs the 1<sup>st</sup> plural form of the verb 'to bear' (PIE *\*bher-*) as *\*bhéromo u(e)is* > *bhéromou̯is* > *bhéromois*. This ending would have become *\*-mais* in Germanic and result in OHG *-mēs* (Hollifield 1980:150). Boutkan (1995) has yet another modification to avoid the apparent survival of a final *-s* when he assumes the involvement of a dual pronoun and reconstructs accordingly: *\*bheromo/e ueh<sub>1</sub>* > *\*berama/e mē* > *beramē* which later influenced the regular ending *\*-mes* (>> *\*-mēs*)" (Boutkan 1995:316) and a subsequent spread of the hic et nunc particle *-i* in Germanic to explain the preservation of the final *s*, i.e. *-mēs* from older *\*-mēsi*.

If we assume that a short vowel form of the ending *-mes* represents a more original state of affairs in OHG, it is difficult to get such a short vowel ending as a result of the univerbation process of the verb form and the pronoun with subsequent contractions and cluster simplifications. The reconstruction of Prokosch (1939) cannot yield a short vowel ending and neither can the reconstruction of Hollifield (1980). Both have diphthongs as an intermediary step and we cannot justify an early monophthongization resulting in a short *e*. The final *-s* of the pronoun is also problematic, even if we assumed a drastic vowel reduction, along the lines of *\*bhérome u(e)is* > *\*bhéromes* >

*berames*. Here the only thing left of the pronoun is the final -s which is the only item that most certainly disappeared. Obviously we have to abandon this approach, at least with the current formulation. The reconstruction of Boutkan (1995) is specifically aimed at explaining the long vowel and becomes unnecessary since he already assumes an ending *-mesi*, in PG, which then would not have to be modified further. On the whole the theory of enclitic personal pronoun does not become any more attractive in light of the results of our investigation.

#### 7.2.2.5 *Shields' theory of multiple plural markers revisited*

In section 3.6.2.5 we discussed possible origins of the OHG ending within the framework of Shields “new image” of Indo-European morphology. According to this theory the OHG 1<sup>st</sup> person plural ending is a result of a mix of two PG endings, *-mes* and *-mē*, which were two of many plural endings inherited from an earlier stage of PIE. The starting point in PG is therefore very similar to the one of Krahe, discussed above, and runs into many of the same problems. The origin of these endings in PIE within Shields’ framework is more uncertain as the state of affairs in the protolanguage is much more loosely defined than in traditional reconstruction. Phonological problems can be avoided by assuming there were many different plural morphemes that were not assigned to specific categories. If we believe that PIE had multiple plural markers that were morphologically unspecific we could probably find a way to modify the ancestor forms of these two endings as to avoid any phonological problems, such as the survival of final -s.

Looking at this theory in light of the results of our investigation we find that the lack of rigorousness of the reconstructed system allows for a large amount of flexibility. If we explore the possibility that the ending was originally short, the OHG ending most likely goes back to a PG ending *\*-mes + vowel*. We can certainly find the ancestor of

such an ending in the inherited bunch of plural endings or secondary analogically formed endings that we assume existed in PG before endings were assigned a specific function. A possible form of such an ending could have been *\*-mesi*, *\*-mese*, *\*-mesa*, where the extra morphology could represent sandhi-variants of the plural *e/on*-ending, zero grade or monophthongized variants of the *-oi* plural morpheme or some other secondary process. The ad-hoc-ness of the theory makes it very flexible, but in return of limited use when it comes to explaining the origin of grammatical phenomena like the 1<sup>st</sup> person plural verb ending. The results of our investigation does not change our original evaluation that the basic premise of this theory does not provide us with any advantages over other, more rigorous approaches.

### 7.2.3 *Results of previous accounts*

We have now revisited the theories discussed in section 3.6 and reevaluated them in light of the results of our investigation. We had already concluded that all of them had problems accounting for the origin of the OHG ending, when we assumed the OHG form of the ending to be *-mēs*. When we looked at the theories from the viewpoint of an alternative analysis and assumed the OHG form of the ending to contain a short vowel originally, i.e. *-mes*, we found that this notion was hard to accommodate within the framework of most of the theories.

Of the five more recent approaches we reviewed we found the alternative middle paradigm of Roberts to be least helpful, along with Shield's theory of multiple plural markers. Both these theories have at their basis a view of PIE verbal endings that cannot be sustained. The theory of incorporated enclitic pronoun also proved difficult to consolidate with the results of the investigation, mostly from phonological standpoint. It is however possible that the close connection between an ending and a



pronoun might play a role when accounting for the origin of the ending short vowel ending *-mes*. This possibility will be explored further in section 7.3.4 below.

The other two theories reviewed touched on some relevant points. The theory of Krahe, seeking PIE origin of the ending, assumed the existence of a PG ending *\*-mes*, which could be potentially significant to a short vowel origin of the OHG ending, but at the same time it is clear that this PG ending cannot reflect any reconstructed PIE 1<sup>st</sup> person plural ending directly. Possibly a PIE ending *\*-mesi* could play a role. Wilmanns (1906) pointed out the potential importance of an OIr. ending *-mi*, which could go back to a PIE ending *\*-mesi*. Boutkan (1995) also assumes a PG preform *-mesi* as an intermediate step in his scenario. This ending might be relevant when looking at the origin of the short vowel OHG ending *-mes* (see section 7.3.2 below).

Our conclusion from these theories reviewed and revisited, is that the theory of Bech and his approach of seeking an analogical explanation for the ending is probably the least problematic of the ones reviewed. The greatest advantage of this theory is that it is confined to OHG itself.

### **7.3 Exploring a possible short vowel origin**

In section 7.1 we reviewed the earlier theories about the origin of the ending with the results of our investigation in mind. We took a closer look at these theories assuming a short vowel origin as an alternative possibility but were not able to come up with any plausible scenarios of explanation within the frameworks of these theories. In several of the theories a short vowel preform played a part in the reconstruction if only to undergo some secondary lengthening processes to make it compatible with the long vowel presupposition. Thus we observed that the preforms PG *\*-mesi* and even PG *\*-mes* played a role as intermediary steps. It is possible that these forms might be relevant when discussing a potential alternative short vowel origin of the ending. We

will now take a closer look at these and other possibilities that might help to account for the OHG ending if we assume an original short vowel.

### 7.3.1 PG *\*-mes* > OHG *-mes*

One way of explaining the OHG first person plural ending *-mes* is to trace it back to PG *\*-mes*. This ending formed part of the reconstructed process of Krahe (1957) discussed in 3.6.2.2. There this ending was considered to be a Verner's variant of the regular ending PG *\*-mez*, originally limited to athematic verbs. If we consider this form to have existed we need not look further for an explanation of the OHG ending. However we consider Verner's alternation not to be relevant for final *\*-s* as the evidence indicates that all final *\*-s* became *\*-z* in PG. If this is the case we need to find some other source of the devoicing of the final *\*-z*, which is not immediately clear. Since such an ending would go against the phonological development we have assumed as basis of our investigation we have to conclude this ending never existed in Proto-Germanic so we can exclude it from playing a part in the origin of the OHG ending.

### 7.3.2 PG *\*-mesi* > OHG *-mes*

The PG ending *\*-mes* could also reflect the regular primary ending PIE *\*-mes* with some additional morphology. It is not obvious what this extra morphology would have been. The most straight forward way to account for it would be to assume a PIE preform *\*-mesi*, i.e. the regular primary ending *\*-mes* with the addition of the particle *-i*. This is similar to the approach of Wilmanns (1906:7), discussed in section 3.6.1, who wanted to link together the OHG ending and the Old Irish ending *-mi*. He assumed the PIE form of the ending to be *-mēsi* but the OIr. ending could also go back to *-mesi* (i.e. the regular ablaut grade + *i*). This *i*-particle is the primary marker in the singular but could be further extended into the plural. We have further evidence for

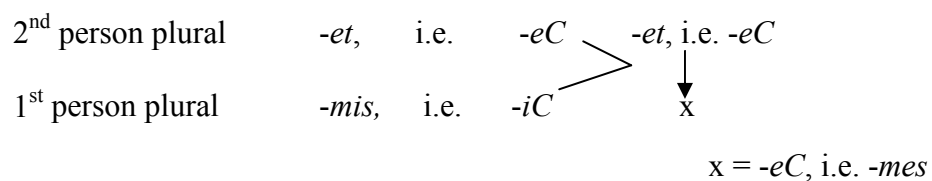
this development from other Indo-European branches, such as Indo-Iranian, e.g. Vedic. 1<sup>st</sup> person plural ending *-masi*, beside *-mas* (cf. section 3.2). The spread of this particle from the singular forms of the primary endings to the plural is a very logical analogical change and could well have taken place in more than one branch. We can then assume that in a similar manner as Indo-Iranian, PG inherited two forms of the 1<sup>st</sup> person plural ending from PIE, *\*-mesi* and *\*-mes*. Subsequently *\*-mesi* became PG *\*-mes* whereas *\*-mes* became *\*-mez* and later *\*-m*. These two endings developed differently in different Germanic sub branches, with only OHG generalizing *-mes*, whereas other dialects generalized *-m*.

There is a slight problem with this scenario with regard to phonological development. We would expect the *e*-vowel of the ending to have been raised to *i*, due to the *i* in the following syllable, as we see attested in 2<sup>nd</sup> person sg. PIE *\*-esi* > PG *\*-is*, e.g. PIE *\*bheresi* > OHG *biris*. In the same manner the expected PG outcome of PIE *\*-mes* and PIE *\*-mesi* would have been two PG endings, *\*-m(e)z* and *\*-mis(i)*. We must therefore either assume that the vowel of the 1<sup>st</sup> person plural ending did not raise or that it was lowered again due to some secondary influence.

Even though we would expect the raising of the *e* > *i* in the 1<sup>st</sup> person plural ending based on comparison with other endings, such as the 2<sup>nd</sup> person singular ending, it is not absolutely certain that the same factors were involved. The 1<sup>st</sup> person plural ending is unique in the conjugational paradigm in that its vowel most frequently occurs in the third (closed) syllable, i.e. after the root and linking vowel. It is possible that such syllables were treated differently from other unaccented syllables and perhaps the final particle disappeared earlier from such forms than disyllabic forms, such as the 2<sup>nd</sup> person singular. This phonological difference might explain the lack of raising of the vowel in 1<sup>st</sup> person plural form *-mes*. If this was the case we could simply assume the

two PG endings being  $*-m(e)z > *-m$  and  $*-mes(i) > *-mes$  and define the latter environment as not susceptible to raising due to prosodic or syllabic constraints.

There are other possibilities we can explore to explain the apparent exception to the expected vowel raising. The vowel of the ending could also have been subject to analogical influence. A likely source of such influence would be the 2<sup>nd</sup> plural, OHG *-et*. This ending is the regular form for the strong verbs and the 1<sup>st</sup> class of weak verbs. The source and target vowels are of different origin and function, i.e. the 2<sup>nd</sup> person vowel is originally the thematic vowel, whereas the vowel of the 1<sup>st</sup> person ending is part of the ending itself. That does not change the fact that these vowels are synchronically both in the final syllable of their respective verb forms. If we have a conjugational paradigm where 1<sup>st</sup> person plural is  $*-mis$  and 2<sup>nd</sup> person plural is  $*-et$  we can postulate an analogical process, which is illustrated in Figure 8.



**Figure 8:** Analogical process resulting in *-mes*.

The 2<sup>nd</sup> person ending, *-et*, with a final syllable of the shape *-eC* vs. 1<sup>st</sup> person ending *-mis* with a final syllable in *-iC*, analogically influences the vowel of the ending and the result is a new analogical ending *-mes*. The formulation here indicates that the vowel shifted to *i* and then back to *e* but we might just as well assume that analogical pressure from the second person vowel prevented the shift from happening in the first place.

Our conclusion is that even though it is perhaps possible to account for the OHG ending *-mes* as a descendant from a PG  $*-mesi$  there are significant problems with the derivation, which make it not so desirable.

### 7.3.3 PG *\*-masi* > OHG *-mes*

It is clear that for an OHG form ending in a final *-s* the corresponding PG form must have had some additional morphology following this final *-s*. We have already discussed the potential origin of the OHG ending in PG *\*-mesi* which showed the regular primary ending PIE *\*-mes* with the addition of a particle *-i*. The main problem with this scenario was the lack of expected *i*-umlaut, which we assumed would have affected the vowel of the ending.

A slightly different view can be explored here. Instead of our starting point being the PIE ending *\*-mes* plus the particle *-i*, we assume that Germanic inherited the alternative vowel form of the ending, i.e. PIE *\*-mos*. We have evidence for this form in other PIE branches, such as Italic, cf. Latin ending *-mus* (see section 3.2), so we know it was part of the PIE inventory. This ending would then have been reinforced by the same particle *-i* discussed above. The result is a PG form *\*-masi* which would have coexisted along side the regular 1<sup>st</sup> person plural ending *-mez* from PIE *\*-mes*. We can then assume that the final *-i* in *\*-masi* caused a fronting effect on the previous vowel resulting in a raising from *a* to *e*. As a result we would have an alternative ending in PG *\*-mes(i)*. The distribution of these endings is unclear, but we assume they both existed in PG and subsequently different sub branches generalized different forms of the ending. This approach has to be considered a slight improvement over the one discussed in 7.3.2 although the existence of multiple endings in PG is not very attractive.

### 7.3.4 PG *\*-mesu* > OHG *-mes*

One of the previous theories about pronominal origin of OHG *-mēs* had a process of univerbation at its core, i.e. a verb form and a following personal pronoun had merged to form an effectively new ending. Although our conclusion was that this most likely

was not the case in OHG, it is possible to assume a similar process when looking at alternative origin of the short vowel ending. Instead of assuming that forms such as *\*bhéromes\*y(e)is* with a following first personal pronoun *\*y(e)is* were unverbated, we rather assume that the pronoun caused the ending to be extended, i.e. the initial labial element of pronoun became part of the ending. This must have happened already in early PG, or before the final *s > z*. Taking the PIE forms as a starting point we have *\*bhéromes* followed by *y(e)is* resulting in forms like *\*bhéromesy* or *\*bhéromesu*, where the initial bilabial glide consonant has been extended to the ending in inverted constructions and subsequently resyllabified. It is very common for pronouns and endings to be influenced by one another as we have observed at various points in our discussion above. The closest parallel that comes to mind is the case of Modern Icelandic second person sg. present indicative ending *-ð*, we find in some strong verbs, which is the result of a similar process involving the second person pronoun *þú* (cf. the discussion above in section 3.4.1 and Thórólfsson 1925:112). Let's consider the pairs in

Figure 9.

<i>Old Icelandic</i>			<i>Modern Icelandic</i>	
<b>regular</b>	<b>inverted</b>		<b>regular</b>	<b>inverted</b>
þú sér	sér þú	‘you see’	þú sérð	sérð þú

**Figure 9:** Remodeling of a verb ending in Icelandic.

Here we see how the initial consonant of the pronoun has become associated with the ending of the verb. The point of contact is in inverted constructions which then were the word boundary was reanalyzed and the initial consonant of the pronoun became part of the verb ending. This new verb ending was then used across the board, i.e. in

non-inverted constructions. The PG or early OHG process considered here would have followed the same principles.

By assuming a PG ending *\*-mesu* we get a potential alternative ancestor of OHG *-mes*, without running into the same problems as we did when contemplating the PG preform *-mesi*.<sup>81</sup> We still have to assume two alternate endings in PG, but these are descendent from the same PIE preform. The process is therefore an improvement over the alternative possibilities discussed in the previous sections.

#### 7.3.4.1 *Short vowel origin — conclusion*

By assuming a short vowel origin of the OHG ending we don't get rid of all the problems discussed in relation to previous accounts, but we are able to account for all the Germanic 1<sup>st</sup> person plural forms as consisting of all the same basic components, i.e. linking vowel, *\*m*, the vowel *\*e*, and *\*s*. The predecessor of the OHG ending is also derived from the regular PIE present/aorist ending *\*-mes*, with the addition of extra morphology.

Even if we assume that the inherited 1<sup>st</sup> person plural ending in OHG had a short vowel we have to account for further secondary processes to explain the situation we find in Cod. Sang. 916. The evidence from the manuscript illustrates that there did indeed exist a variant ending *-mēs*, which is indicated by double writing of vowels in certain parts of it. This form of the ending however can be interpreted as reflecting a later secondary lengthening of the 1<sup>st</sup> person plural ending. It is not clear how widespread this lengthening of the ending was, whether it was limited to a single dialect or had a wider distribution. The results of our investigation indicate that we cannot assume with any certainty that the vowel was long outside the dialect of one or

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<sup>81</sup> There is evidence that an unaccented PG *\*u* could have a raising effect on a root vowel in OHG, but not in all cases, e.g. *helfu* > *hilfu* vs. *ernust* (Braune/Reiffenstein 32-33). Obviously these examples are not directly comparable to this scenario as here both vowels are unaccented.

several scribes or copyists of the predecessor of Cod. Sang. 916. The conditions of the lengthening process are not totally clear but some tendencies have been brought to light that might play a role. We will discuss this further in section 7.3.5.2 below.

### 7.3.5 *Shortening vs. lengthening*

If we are right in our interpretation of the philological facts in assuming that the 1<sup>st</sup> person plural ending was *-mes*, i.e. with a short vowel, at least for some speakers of Old High German, we have two options to account for its origin. Either it shows a very early shortening of an inherited ending *-mēs*, which then would have to be the original form. Alternatively we can assume that the original form of the ending was *-mes*, and the ending *-mēs* is derived from it through a secondary lengthening process. We will now explore both these possibilities.

#### 7.3.5.1 *From -mēs to -mes*

All the previous scholarship and literature has made the assumption that the 1<sup>st</sup> person plural ending in OHG was *-mēs*, i.e. the vowel was long. In section 3.6 we accounted for the majority of the ideas and theories set forth in the literature on how to best explain the origin of the ending assuming this phonological form. The conclusion from our discussion and subsequent review of these theories in light of the results of the current investigation suggested that almost all the previous ideas are irreconcilable with the comparative evidence and/or the current reconstruction of the PIE verbal system as laid out in section 2.2. The theory we considered the best to account for the situation in OHG is the analogical theory of Bech (1962). This theory confines the problem to OHG and thus can explain the lack of comparative evidence outside of OHG as well as avoiding dubious reconstructions. Although this theory is not without problems it is better than any other approach set forth in the literature so far. Our



conclusion is that if the original form of the ending was *-mēs*, our best option is to assume that it did originate as an analogical adhortative ending in early OHG, and spread from there to include other moods and tenses.

If the original form of the ending did have a long vowel, we have to assume, in order to be able to account for the situation in our manuscript, that very early it was secondarily shortened. The most straightforward way to do that is to assume a phonological shortening process whereby the ending *-mēs* became *-mes*. We know that some historically long unaccented vowels are short in OHG. This is the true e.g. in the case of 1<sup>st</sup> and 3<sup>rd</sup> person sg. where a final long *ē* from an older PG *\*-ai*, was shortened already in the period of earliest texts (cf. discussion in 5.3.2).

The conditional environment of such a shortening needs to be defined. The vowel of the 1<sup>st</sup> person plural ending might have been susceptible to shortening due to its phonemic context. Besides the vowel of the ending being unaccented, the forms are usually long, three or more syllables, and with the vowel appearing in the last of these syllables. If the target of the shortening rule was linked to a specific syllabic structure the verb forms might have been more susceptible to it than other categories. We can thus see how a vowel in such an environment would be subject to weakening and lose its quantity earlier than other long unaccented vowels. We would then have to assume in addition that verb forms that did not fulfill the syllabic criteria were then subject to analogical change from the forms that did.

The scenario we assume would then be something like this: First the analogical process of Bech takes place and the new adhortative ending, *-mēs*, spreads further to other moods. Shortly thereafter due to its phonological structure the vowel of the ending was weakened and shortened; first in certain syllabic context and subsequently the short vowel was analogically generalized across the board.

#### 7.3.5.2 From *-mes* to *-mēs*

If we take the alternative approach and assume that the vowel of the ending was originally short we have at least two different ways to account for the ending *-mēs*; either as a result of a phonological development or as a result of an analogical development.

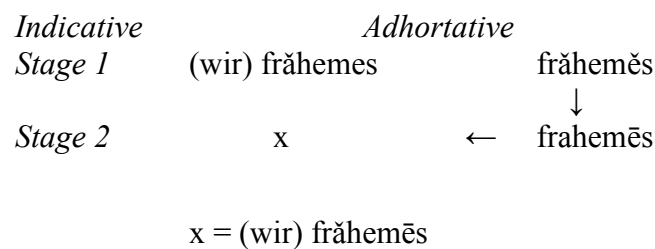
When we look at potential ways of formulating the change of *-mes* to *-mēs* as a phonological process, we immediately run into some difficulties. The vowel of the ending must be considered to be in a rather implausible environment for a lengthening. The vowel is unaccented and usually occurs in third or fourth syllable. The lengthening process is furthermore limited to verbal forms, i.e. there is no evidence for nominal forms of the same phonological shape such as gen. sg. masc. in 9.09 *meistartuames* ‘mastery’ to have a long final vowel. This phonological process must therefore be formulated taking the grammatical category into consideration.

When we look at potential conditioning factors of such a lengthening, we might consider the preceding nasal to play a part in the process. This tendency might also have some support in other word categories. When we looked at the data for the nom. sg. masc. adjective ending *-ēr*, we found some indications that it was more often spelled with a double vowel when following a nasal or other sonorants. Perhaps then this is indicative of some general phonological tendency whereby unaccented *e* > *ē* following a sonorant. There are however ample counterexamples where this does not seem to be the case, e.g. nominal genitive form *meistartuames* cited above. The patterning observed of the adjectival ending with the 1<sup>st</sup> person plural ending might suggest that the vowel in this ending was also originally short, but the matter requires a much more extensive research than it is possible to undertake here.

On the other hand there are clues in the text indicating a category-specific lengthening rule. This is at least clear in case of the *mēs*-ending. The forms in Quire I where the

vowel of the ending was indeed written double were cases of adhortative forms. It is possible that such forms had extra stress or were somehow more marked in their usage, and thus the vowel was susceptible to emphatic lengthening. Emphatic lengthening is a well known process, but usually occurs in stressed syllables, e.g. ON 1<sup>st</sup> person plural pronoun *vér* shows such a secondarily lengthened vowel in an accented pronoun, cf. the short vowel of the corresponding form *wir* in OHG, (cf. Prokosch 1939:283).

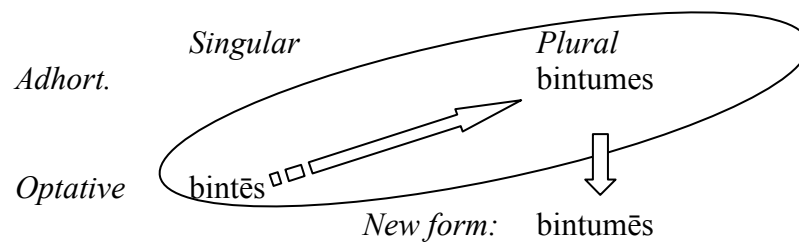
It is not inconceivable that the verb ending *-mes* would have gotten a strong secondary stress when used adhortatively. The indiscriminate double vowel spelling of the verb form in subsequent quires would then indicate that the long vowel of ending had spread from the adhortative to include the other forms of the verb. The process is schematized in Figure 10. Stress is indicated by the ‘<sup>˘</sup>’ symbol.



**Figure 10:** Possible creation and analogical spread of the *mēs*-ending.

Another possibility is that the ending was susceptible to analogical process which caused the vowel to lengthen under certain conditions. The source of this long vowel is most likely found in the conjugational system. This can be accounted for by assuming an analogical process reminiscent of the one proposed by Bech (1962). Instead of the second person singular optative being reanalyzed as having the ending *-ēs*, which then was generalized to the regular 1<sup>st</sup> person plural verbal forms, we might consider the long vowel of the second person optatives, being interpreted as an

imperative characteristic and used to mark the adhortative forms as well. The original short vowel of the 1<sup>st</sup> person plural ending is thus analogically lengthened. This analogical scenario is not as neat as the one described by Bech, but it is not impossible to imagine that the length of the unaccented vowel of the ending of the 2<sup>nd</sup> person sg. optative/imperative forms might have spread to related verb endings which had a similar phonological shape. It is difficult to describe the process as a proportional analogical process, but rather some sort leveling of an adhortative/imperative paradigm. It is also reminiscent of the contamination process involving *-mes* and *-mē* discussed in 3.6.2.2 and 7.2.2.2. An attempt to formalize this process is found in Figure 11.



**Figure 11:** Analogical process showing spread of long *ē* to 1<sup>st</sup> person plural.

The figure attempts to describe a process by which the adhortative form *bintumes* and the optative sg. form *bintēs* acquired an association as being both used as forms for expression of command and thus the long unaccented vowel was generalized from one form to the other as a formal characteristic of such an expression. In line with the scenario proposed by Bech (1962) we then assume further generalization of this new ending from the adhortative to other moods.

### 7.3.6 *Conclusion*

We have now reevaluated the OHG 1<sup>st</sup> person plural ending and its possible origin in light of the investigation undertaken here. Our main conclusion is that a short vowel origin of the ending is possible and at the same time a long vowel origin cannot be totally excluded. If we assume a long vowel origin of the ending the scenario proposed by Bech (1962) provides the best option to account for such an origin. In addition we have to assume that very early a phonological or analogical shortening process occurred to explain the situation in our manuscript. If we pursue a different approach and we prefer a short vowel origin our best option is to assume a special variant of the ending in PG which was inherited and generalized in OHG. Here we also have to assume a very early a phonological or analogical lengthening process to account for the situation in our manuscript.

The result of our investigation and subsequent discussion has brought to light that an alternative origin of this problematic OHG ending can be considered. We have explored ways to account for the ending assuming a short vowel offering a different approach from any other which hitherto has been advanced in the literature.

## 7.4 **Other results**

The focus of this work has been on the 1<sup>st</sup> person plural ending, its origin and textual evidence. Our main conclusion is that we can explore alternative short vowel origin of this ending in view of our interpretation of the philological evidence. These are not the only results of this investigation. There are other issues that we have addressed and brought to light along the way that we will now briefly recapture.

### 7.4.1 *Sound tendencies*

Our analysis of double vs. single vowel spelling in various word categories revealed certain tendencies, which could be phonological. We noticed that in the case of the

*ēm*-ending pronouns had a tendency to be treated differently from adjectives, with short vowel forms being more common. This could indicate category-specific phonological shortening. When looking at the *ēr*-ending we found double vowel writing more frequently following voiced consonants and single vowel writing after voiceless consonants. It is not clear how to interpret this as the history of this ending is somewhat unclear, but either a phonological lengthening process or a shortening process is likely. When examining the examples of the *ōm*-ending. We found some indication that forms where *h* (or *g*) immediately precedes the vowel it was written with a single vowel spelling, possibly indicating a phonological shortening. In the case of *īn*-stems we found consonant cluster of the type *Ct* immediately preceding the short form of the ending in some parts of the manuscript, which would be another environment for phonological shortening.

These tendencies are not clearly conditioned sound laws but merely trends we observed when looking at the data. They seem to be more than just random inconsistencies in spelling, but need to be investigated further before they can be dismissed or confirmed.

#### 7.4.2 *Medial syllables*

One of the main orthographic characteristics involving long vowels and double vowel spelling we observed was the fact that historical long vowels are usually not written double when they occur in medial syllables. This has been pointed out previously in the literature but here all the relevant examples can be studied. There are two main possibilities for interpreting this orthographical fact. Either it reflects some sort of a sound change, a shortening of long medial syllables, or alternatively some sort of spelling peculiarity, i.e. the vowels are long but the length is not denoted.

The evidence points to the latter. Most of these vowels are written with a circumflex accent in the Notker texts, which shows them to be long 200 years after Cod. Sang. 916 was written. Historical evidence also points to a long vowel. It is possible that this spelling peculiarity is best explained from a phonological point of view. Even though length was distinctive in unaccented syllables in OHG it is likely that this length distinction was not always relevant, i.e. in many cases there was no direct phonological contrast between a short and a long vowel in identical context. We can take as an example the feminine *n*-stem nom. plural ending *-ūn* which is in direct contrast with masc. *n*-stem ending *-un*, e.g. *zungūn* vs. *hanun*. Here the contrastive length is obviously relevant. We may also consider the gen. plural ending *-ōno*. Here there is no clear contrast against items in *-ono*. The vowel length is not important and to some extent “neutralized” in phonological terms. Thus the length of the vowel is not indicated in the spelling. A parallel phenomenon exists in Old Norse. In this language vowel length is not distinctive in unaccented syllables, but only in accented syllables. Some texts have vowel length consistently indicated by the use of accents. In such texts there are a number of exceptions where long vowels are not indicated in the orthography. Hreinn Benediktsson (1965:60) has shown that these exceptional cases can mostly be explained from a phonological perspective and occur where the length is not phonologically relevant, i.e. in those syllable types where there is no phonological distinction of length. It is likely that the lack of spelling of double vowels in medial syllables can be explained by referring to lack of phonological opposition in certain syllable types, but the matter requires closer investigation.

#### 7.4.3 *Further use of the database*

The results of our investigation may also provide insight into other related philological problems we have not been able to address. The database can be used to shed further

light on some of the textual and paleographical issues involving the origin of the manuscript and its philological history such as contribution of scribes and revisers. We have also at various points in our investigation touched upon peculiarities that could be scrutinized further and the database provides a valuable research tool for further study. Here the focus has been on the 1<sup>st</sup> person plural forms but one can postulate that the database could be useful when looking at other grammatical phenomena, either on its own, or incorporated into larger collections of data from OHG texts.

## **7.5 Final words**

This work was initially inspired by asking one simple question that turned out to have a rather complicated answer. It illustrates the necessity to ask such questions and demonstrated that we should not hesitate to go back to the source material, the texts on which all investigation in Historical linguistics is ultimately based. Instead of revealing some “new truth” within the field of Germanic Historical Linguistics this work is more of a demonstration in how one can dive below the surface. It is not just an investigation into a particular manuscript or a particular verb ending, but rather shows how by asking basic questions and using all available resources we may gain new insights and find new research potential; even in very thoroughly studied subjects.



## Appendix I

Overview of all the words in the active database.

a) Overview of all examples of words with a long vowel in root (accented) syllable.

Vowel	VV	Acc	Prefix	Word	Page	*	Class	Form	Scribe	Quire
a	n	root		suuarre	9.01	*	adj.	gen. sg. neut.	1	I
a	n	root		uuannemes	9.02		verb	1st pl. pres. ind.	1	I
a	n	root		achustjo	9.05		noun	gen. pl. fem.	1	I
a	n	root		sar	9.07		adv.		1	I
a	n	root		slaffii	11.01		noun	acc. sg. fem.	1	I
a	n	root		vvaremv	11.05		adj.	dat. sg. masc.	1	I
a	n	root		vvaffan	11.07		noun	acc. pl. neut.	1	I
a	n	root	duruh	tan	11.10		part. pret.		1	I
a	n	root		tatim	11.14		noun	dat. pl. fem.	1	I
a	n	root		slaffe	12.08		noun	dat. sg. masc.	1	I
a	n	root		stanne	12.08		verb	inf. dat.	1	I
a	n	root	pi	fahe	13.02		verb	3rd sg. pres. opt.	1	I
a	n	root		vveran	13.08		adj.	acc. sg. masc.	1	I
a	n	root		gnada	14.01		noun	dat. sg. fem.	1	I
a	n	root		tatio	14.04		noun	gen. pl. fem.	1	I
a	n	root		tatim	14.10		noun	dat. pl. fem.	1	I
a	n	root		frahemees	14.11		verb	1st pl. pres. imp.	1	I
a	y	root	jn	kaat	14.18		verb	3rd sg. pres. ind.	1	I

a	n	root		ano	14.18		prep.			1	I
a	n	root		vvarhafti	15.01		noun		acc. sg. fem.	1	II
a	n	root		nahistin	15.03		noun		dat. sg. masc.	1	II
a	n	root		nahistin	15.04		noun		dat. sg. masc.	1	II
a	n	root		vvannant	15.13		verb		3rd pl. pres. ind.	1	II
a	n	root		spahemv	16.05		adj.		dat. sg. masc.	1	II
a	n	root		platoon	16.07		verb		3rd pl. pret. ind.	1	II
a	n	root		qhuamun	16.07		verb		3rd pl. pret. ind.	1	II
a	n	root		tatun	16.08		verb		3rd pl. pret. ind.	1	II
a	n	root		tatim	16.12		noun		dat. pl. fem.	1	II
a	n	root	int	frahetomes	17.02		verb		1st pl. pret. ind.	1	II
a	n	root		ano	18.02		prep.			1	II
a	n	root		achusti	18.04		noun		acc. pl. fem.	1	II
a	n	root		ano	18.14		prep.			1	II
a	n	root		vvannant	18.17		verb		3rd pl. pres. ind.	1	II
a	n	root		uuannant	19.01		verb		3rd pl. pres. ind.	1	II
a	n	root		statige	19.07		adj.		nom. pl. masc.	1	II
a	n	root	far	lazzanem	19.11		part. pret.		dat. pl. masc.	1	II
a	n	root		tatim	19.17		noun		dat. pl. fem.	1	II
a	n	root		atum	20.03		noun		acc. sg. masc.	1	II
a	n	root		scaffum	20.15		noun		dat. pl. neut.	1	II
a	n	root	zuaki	taniv	21.01		part. pret.			1	II
a	n	root		tatim	21.02		noun		dat. pl. fem.	1	II
a	n	root	zuaki	tan	21.03		part. pret.			1	II
a	n	root		vvarhaftij	21.06		noun		acc. sg. fem.	1	II

a	n	root		scaffum	21.09		noun		dat. pl. neut.	1	I	II
a	n	root	Jnt	fahit	21.11		verb		3rd sg. pres. ind.	1	I	II
a	n	root		tatim	21.14		noun		dat. pl. fem.	1	I	II
a	n	root		tatim	21.17		noun		dat. pl. fem.	1	I	II
a	n	root		tatim	22.02		noun		dat. pl. fem.	1	I	II
a	n	root	ke	sahi	22.10		verb		2nd sg. pret. ind.	1	I	II
a	n	root	ki	sahi	22.11		verb		2nd sg. pret. ind.	1	I	II
a	n	root		tatim	22.14		noun		dat. pl. fem.	1	I	II
a	y	root		saar	24.11		adv.			1	I	II
a	y	root		zaala	24.14		noun		gen. sg. fem.	1	I	II
a	n	root		vuar	26.02		adj.		unclear	1	I	II
a	n	root		ano	27.03		prep.			1	I	II
a	n	root		ano	27.05		prep.			1	I	II
a	n	root		scaffum	27.08		noun		dat. pl. neut	1	I	II
a	n	root		achustim	27.12		noun		dat. pl. fem.	1	I	II
a	y	root	ke	taan	27.12		part. pret.			1	I	II
a	n	root	ke	ratte	27.13		noun		dat. sg. neut.	1	I	II
a	y	root	ke	taan	27.17		part. pret.			1	I	II
a	n	root	ki	ratj	27.18		noun		acc. sg. neut.	1	I	II
a	n	root	ke	rate	28.02		noun		dat. sg. neut.	1	I	II
a	n	root	ke	ratj	28.05		noun		acc. sg. neut.	1	I	II
a	n	root		ano	29.06		prep.			1	I	II
a	n	root	ke	rattes	29.11		noun		gen. sg. neut.	1	I	II
a	n	root		tatim	29.12		noun		dat. pl. fem.	1	I	II
a	n	root	ki	ratjda	29.12		noun		dat. sg. fem.	1	I	II

a		n	root		nahistun	29.17		noun	acc. sg. masc.	1	I	II
a		n	root		vvattan	30.09		verb	infinitive	1	I	II
a		n	root		tatj*	30.11	*	noun	dat. pl. fem.	1	I	II
a		y	root		aabulkii	30.13		noun	acc. sg. fem.	1	I	II
a		n	root	far	lazzan	30.16		verb	infinitive	1	I	II
a		n	root		uuarhafij	30.17		noun	acc. sg. fem.	1	I	II
a		n	root	ki	tanaz	31.02		part. pret.	acc. sg. neut.	1	I	III
a		y	root		aahitunga	31.05		noun	acc. sg. fem.	1	I	III
a		n	root		tragran*	31.08	*	adj.	acc. sg. masc.	1	I	III
a		y	root		slaaffagan	31.08		adj.	acc. sg. masc.	1	I	III
a		n	root		vvvan	31.09		noun	acc. sg. masc.	1	I	III
a		n	root	ki	tanaz	31.12		part. pret.	acc. sg. neut.	1	I	III
a		y	root		aatumlijhvn	31.15		adj.	dat. sg. fem.	1	I	III
a		y	root	ki	taat	31.17		noun	acc. sg. fem.	1	I	III
a		n	root		ano	32.01		prep.		1	I	III
a		y	root		saar	32.02		adv.		1	I	III
a		n	root		atumlijhemv	32.03		adj.	dat. sg. masc.	1	I	III
a		n	root		sprahhu	32.05		noun	dat. sg. fem.	1	I	III
a		n	root		vvvarlijhhor	33.04		adv.	comparative	1	I	III
a		n	root		tatim	33.05		noun	dat. pl. fem.	1	I	III
a		n	root	far	vvvannan	33.13		verb	infinitive	1	I	III
a		n	root		atumlijhvn	33.14		adj.	gen. sg. fem.	1	I	III
a		n	root		dar	34.05		adv.		1	I	III
a		n	root		statigij	34.07		noun	nom. sg. fem.	1	I	III
a		n	root		tuuala	34.10		noun	dat. sg. fem.	1	I	III

a	n	root		ano	34.10		prep.		1	III
a	n	root		vannant	34.12		verb	3rd pl. pres. ind.	1	III
a	y	root		saar	34.15		adv.		1	III
a	n	root		tuuala	34.17		noun	acc. sg. fem.	1	III
a	n	root	far	lazzante	35.04		part. pres.	nom. pl. masc.	1	III
a	y	root		saar	35.04		adv.		1	III
a	y	root	far	laazzante	35.06		part. pres.	nom. pl. masc.	1	III
a	y	root		saar	35.06		adv.		1	III
a	y	root	vnduruh	taan	35.07	*	adj/participle		1	III
a	n	root		nahemu	35.08		adj.	dat. sg. masc.	1	III
a	y	root	far	laazzante	35.08		part. pres.	nom. pl. masc.	1	III
a	n	root		tatim	35.09		noun	dat. pl. fem.	1	III
a	n	root	duruh	taniv	35.11		part. pret.	nom. pl. neut.	1	III
a	n	root		ana	36.03		prep.		1	III
a	n	root		trago	36.10		adv.		1	III
a	n	root	ki	tan	36.12		part. pret.		1	III
a	y	root	ke	taan	36.14		part. pret.		1	III
a	n	root		tati	37.05		noun	dat. sg. fem.	1	III
a	n	root		tatj	37.07		noun	dat. sg. fem.	1	III
a	n	root		sprahhom	37.14		noun	dat. pl. fem.	1	III
a	n	root		sprahhoom	38.01		noun	dat. pl. fem.	1	III
a	n	root		filusprahhu	38.04		noun	dat. sg. fem.	1	III
a	n	root		sprahhv	38.14		noun	dat. sg. fem.	1	III
a	n	root	far	lazzamees	38.16		verb	1st pl. pres. ind.	1	III
a	n	root		tatjm	39.17		noun	dat. pl. fem.	1	III

a	y	root		aano	40.04		prep.			1	III
a	n	root		akezzalii	40.17		noun		acc. sg. fem.	1	III
a	n	root	ana	kanc	41.03	*	verb		3rd pl. pres. ind.	1	III
a	n	root		achustj	41.07		noun		dat. sg. fem.	1	III
a	n	root		vvanne	41.10		verb		3rd sg. pres. opt.	1	III
a	n	root		tatj	41.12		noun		dat. pl. fem.	1	III
a	n	root		tatj	44.10		verb		2nd sg. pret. ind.	1	III
a	n	root		tatjm	44.16		noun		dat. pl. fem.	1	III
a	n	root		vvanente	46.03		part. pres.		nom. pl. masc.	1	III
a	n	root		vvane	46.04		noun		dat. sg. masc.	1	III
a	n	root		scaf	46.04		noun		nom. pl. neut.	1	III
a	y	root	far	laazzeen	47.02		verb		3rd pl. pres. opt.	1	IV
a	n	root	ke	taniv	47.09		part. pret.		nom. pl. neut.	1	IV
a	n	root		vvani	47.12		verb		2nd sg. pres. imp.	1	IV
a	y	root		ahtunga	47.19		noun		acc. sg. fem.	1	IV
a	n	root	far	liazzi	48.01		verb		2nd sg. pret. ind.	2	IV
a	n	root		smahlihhii	48.03		noun		dat. sg. fem.	2	IV
a	n	root		smahlihorun	48.11		adj.		acc. sg. masc. comp.	2	IV
a	n	root		aueraf	48.16		noun		nom. sg. neut.	2	IV
a	n	root		filusprahhi	49.11		noun		dat. sg. fem.	2	IV
a	n	root		ano	50.02		prep.			2	IV
a	n	root		spaher	50.05		adj.		nom. sg. masc.	2	IV
a	n	root		huuar	50.13		adv.			2	IV
a	n	root		uuane	50.17		verb		3rd sg. pres. opt.	2	IV
a	n	root		vvanantj	50.19		part. pres.		3rd pl. pres. ind.	1	IV

a	y	root		saar	51.07		adv.		2	IV
a	n	root		ano	51.10		prep.		2	IV
a	n	root		anoo	51.11	*	prep.		2	IV
a	n	root		achustim (hach-)	51.16	*	noun	dat. pl. fem	2	IV
a	n	root		atume	51.17		noun	dat. sg. masc.	2	IV
a	n	root	er	stane	52.04		verb	inf. dat.	3	IV
a	n	root		sareo	52.15		adv.		3	IV
a	n	root		sareo	54.02		adv.		3	IV
a	n	root	ki	taniu	54.09	*	part. pret.	nom. pl. neut.	3	IV
a	n	root	ki	nade	54.15		verb	3rd sg. pres. opt.	3	IV
a	n	root		dar	56.05		adv.		3	IV
a	n	root		sarjo	56.08		adv.		3	IV
a	n	root		stantem	57.04		part. pres.	dat. pl. masc.	3	IV
a	n	root		sar	57.06		adv.		3	IV
a	n	root		ano	58.03		prep.		3	IV
a	n	root		ano	58.15		prep.		3	IV
a	n	root		abantlob	59.16		noun	nom. sg. neut.	3	IV
a	n	root	far	laz	60.04		verb	2nd sg. pres. imp.	3	IV
a	n	root	far	lazzames	60.05		verb	1st pl. pres. ind.	3	IV
a	n	root		achusti	60.06		noun	dat. sg. fem.	3	IV
a	n	root	ka	tan	60.12		part. pret.		3	IV
a	n	root		ano	61.01		prep.		3	IV
a	n	root	ki	tan	64.04		part. pret.		3	V
a	n	root		abantlobum	67.01		noun	dat. pl. neut.	3	V
a	n	root		abantlihchero	67.09		adj.	gen. pl. masc.	3	V

a	n	root		drato	68.12		adv.			3		V
a	n	root	ana	plasannes	70.10		verb		inf. gen	3		V
a	n	root	ka	plater	71.08		part. pret.		nom. sg. masc.	3		V
a	n	root	ana	gat	71.13		verb		3rd sg. pres. ind.	3		V
a	n	root		lazze	72.03		verb		3rd sg. pres. opt.	3		V
a	n	root	ki	uuatote	72.06		part. pret.		nom. pl. masc.	3		V
a	n	root		slafalero	73.01		adj.		gen. pl. masc.	3		V
a	n	root		tati	74.11		noun		dat. sg. fem.	3		V
a	n	root		tati	74.16		noun		dat. sg. fem.	3		V
a	n	root		tati	76.17		noun		dat. sg. fem.	3		V
a	n	root	zua	namut	77.13		verb		2nd pl. pret. ind.	3		V
a	n	root		lahchida	78.16		noun		acc. pl. fem.	3		V
a	n	root		spaheer	81.01		adj.		nom. sg. masc.	1		VI
a	n	root		trager	81.04		adj.		nom. sg. masc.	1		VI
a	n	root		ano	81.07		prep.			1		VI
a	n	root		ana	82.02		prep.			1		VI
a	n	root		ana	83.01		prep.			1		VI
a	n	root		tuuala	83.02		noun		dat. sg. fem.	1		VI
a	n	root		sprahha	83.03		noun		gen. sg. fem.	1		VI
a	n	root	ke	uuatijm	83.15		noun		dat. pl. neut.	1		VI
a	y	root	ana	kaant	84.04		verb		3rd pl. pres. ind.	3		VI
a	n	root		ahchust	84.10	*	noun		nom. sg. fem.	3		VI
a	n	root	far	leazzi	85.04		verb		3rd sg. pret. opt.	3		VI
a	n	root		achusti	85.08		noun		dat. sg. fem.	3		VI
a	n	root	ki	tan	86.03		part. pret.			3		VI



a	n	root		suuarriu	86.16		adj.	nom. sg. fem.	3	VI
a	n	root		suuarrera	88.05		adj.	dat. sg. fem.	1	VI
a	n	root		tragoor	90.06		adv.	comparative	1	VI
a	y	root	far	laazzan	90.14		part. pret.		1	VI
a	n	root		suuar	93.03		adj.	unclear	3	VI
a	n	root		abantcauma	94.03		noun	gen. sg. fem.	3	VI
a	n	root		abandmuasontem	94.06		part. pres.	dat. pl. masc.	3	VI
a	n	root	ka	suuarjt	94.14		part. pret.		3	VI
a	n	root		ano	95.04		prep.		3	VII
a	n	root		spahe	96.10		adj.	acc. pl. masc.	1	VII
a	n	root		ano	96.17		prep.		1	VII
a	n	root		abandmuasen	97.04		verb	3rd pl. pres. opt.	1	VII
a	n	root		dratter	97.12		adj.	nom. sg. masc.	1	VII
a	n	root		ano	97.17		prep.		1	VII
a	n	root		abande	98.04		noun	dat. sg. masc.	1	VII
a	n	root		aband	98.05		noun	nom. sg. masc.	1	VII
a	n	root	ke	tan	98.05		part. pret.		1	VII
a	n	root		abandmuase	98.09	*	noun	dat. sg. neut.	1	VII
a	y	root		saar	98.17		adv.		1	VII
a	n	root	er	stant	98.18		verb	3rd pl. pres. ind.	1	VII
a	n	root		abandmuase	98.18		noun	dat. sg. neut.	1	VII
a	n	root		abande	99.08		noun	dat. sg. masc.	1	VII
a	y	root		saar	99.09		adv.		1	VII
a	n	root	far	lazzit	99.13		verb	3rd sg. pres. ind.	1	VII
a	n	root		tuuala	99.14		noun	acc. sg. fem.	1	VII

a	n	root		suuarrun	100.05		adj.		dat. sg. fem.	1	VII
a	n	root		sarjo	100.13		adv.			1	VII
a	n	root	far	lazzanem	100.14		part. pret.		dat. pl. neut.	1	VII
a	n	root		tatj	101.12		noun		dat. sg. fem.	1	VII
a	n	root		stan	101.15		verb		infinitive	1	VII
a	n	root		slaffit	102.01		verb		3rd sg. pres. ind.	1	VII
a	n	root		tatj	102.12		noun		dat. sg. fem.	1	VII
a	n	root	far	lazzani	102.14		noun		dat. sg. fem.	1	VII
a	n	root		achustj	102.17		noun		dat. sg. fem.	1	VII
a	n	root	far	lazzan	103.02		part. pret.			1	VII
a	n	root		suuarrem	104.03		adj.		dat. pl. fem.	3	VII
a	n	root	ka	tan	104.12		part. pret.			3	VII
a	n	root		stat	105.06		verb		3rd sg. pres. ind.	3	VII
a	n	root		tati	105.08		noun		dat. sg. fem.	3	VII
a	n	root		tati	105.18		noun		dat. sg. fem.	3	VII
a	n	root		atumlihchem	107.04		adj.		dat. pl. masc.	3	VII
a	n	root	uz	kante	108.12		part. pres.		nom. pl. masc.	3	VII
a	n	root		nah	108.12		adv.			3	VII
a	n	root	ki	tan	109.02		part. pret.			3	VII
a	n	root		abande	109.04		noun		dat. sg. masc.	3	VII
a	n	root	ki	tan	109.16		part. pret.			3	VII
a	n	root		sar	110.03		adv.			3	VII
a	n	root	far	lazzanem	110.04		part. pret.		dat. pl. neut.	3	VII
a	n	root	int	fahen	110.13		verb		3rd pl. pres. opt.	3	VII
a	n	root		slaffer	111.03		adj.		nom. sg. masc.	3	VIII

a	n	root		sprahchon	111.04		noun	dat. pl. fem.	3	VIII
a	n	root		achustim	112.17		noun	dat. pl. fem.	3	VIII
a	n	root		sprahchv	113.10		noun	dat. sg. fem.	3	VIII
a	n	root		slaffe	113.10		noun	dat. sg. masc.	3	VIII
a	n	root		atumlihchvm	113.11	*	adj.	gen. sg. fem.	3	VIII
a	n	root		ano	113.16		prep.		3	VIII
a	n	root		atumlihchin	113.17		adj.	gen. sg. masc.	3	VIII
a	n	root		iar	118.04		noun	acc. sg. neut.	3	VIII
a	n	root	pi	fahit	118.09		verb	3rd sg. pres. ind.	3	VIII
a	n	root	ki	vvati	120.11		noun	nom. pl. neut.	3	VIII
a	n	root	ka	uuati	121.03		noun	acc. pl. neut.	3	VIII
a	n	root		smahlichot	121.08	*	adv.	comparative	3	VIII
a	n	root	ka	vvati	121.11		noun	nom. pl. neut.	3	VIII
a	n	root	int	fahant	121.12	*	part. pret.	nom. pl. masc.	3	VIII
a	n	root		vvathvse	121.13		noun	dat. sg. neut.	3	VIII
a	n	root	int	fahen	122.04		verb	3rd pl. pres. opt.	3	VIII
a	n	root		vvathvse	122.04		noun	dat. sg. neut.	3	VIII
a	n	root		svvarjstun	122.17		adj.	dat. sg. fem. sup.	3	VIII
a	n	root		achvst	122.18		noun	nom. sg. fem.	3	VIII
a	n	root		tateo	123.08		noun	gen. pl. fem.	3	VIII
a	n	root		vvarun	123.09		verb	3rd pl. pret. ind.	3	VIII
a	n	root	fir	lazanne	124.02		verb	inf. dat.	3	VIII
a	n	root	far	lazzit	124.06		verb	3rd sg. pres. ind.	3	VIII
a	n	root		smahlichor	125.06		adv.	comparative	3	VIII
a	n	root		atvme	125.12		noun	acc. pl. masc.	3	VIII

a	n	root		dar	126.03		adv.		3	VIII
a	n	root		vuareru	126.08		adj.	dat. sg. fem.	3	VIII
a	n	root		statiki	126.12		noun	gen. sg. fem.	3	VIII
a	n	root		statigi	128.02		noun	dat. sg. fem.	3	IX
a	n	root	ke	taniv	129.08	*	part. pret.	nom. pl. neut.	3	IX
a	n	root	ke	uatoter	129.14		part. pret.	nom. sg. masc.	3	IX
a	n	root	ka	uati	129.16		noun	nom. sg. neut.	3	IX
a	n	root		vvahhvse	129.17	*	noun	dat. sg. neut.	3	IX
a	n	root	dvrüh	stat	132.08		verb	3rd sg. pres. ind.	3	IX
a	n	root	fär	lazan	132.11		part. pret.		3	IX
a	n	root		stan	132.14		verb	infinitive	3	IX
a	n	root		statiki	133.12		noun	dat. sg. fem.	3	IX
a	n	root		statiki	134.09		noun	acc. sg. fem.	3	IX
a	n	root		achvstiger	134.14		adj.	nom. sg. masc.	3	IX
a	n	root	ke	achusteot	135.01		part. pret.		3	IX
a	n	root		ana	137.02		prep.		3	IX
a	n	root	zvaki	tan	137.11		part. pret.		3	IX
a	n	root		huuar	140.06		adv.		1	IX
a	n	root		dar	140.16		adv.		1	IX
a	n	root	ke	rate	141.07		noun	dat. sg. neut.	1	IX
a	n	root		spahii	141.09		noun	gen. sg. fem.	1	IX
a	n	root		achustim	141.13		noun	dat. pl. fem.	1	IX
a	n	root	ke	ratte	141.15		noun	dat. sg. neut.	1	IX
a	n	root		achusti	141.16		noun	nom. pl. fem.	1	IX
a	n	root	ke	kat	141.17		verb	3rd sg. pres. ind.	1	IX

a		n	root	int	fahente	142.04		part. pret.	acc. pl. masc.	1	I	IX
a		n	root	far	lazze	143.07		verb	3rd sg. pres. opt.	1	I	X
a		n	root		achusti	143.08		noun	acc. pl. fem.	1	I	X
a		n	root		dratter	143.13		adj.	nom. sg. masc.	1	I	X
a		n	root		suuarro	144.18		adj.	nom. pl. fem.	1	I	X
a		n	root	ke	plate	145.02		part. pret.	nom. pl. masc.	1	I	X
a		n	root		vvannente	145.03		part. pres.	nom. pl. masc.	1	I	X
a		n	root		dar	145.07		adv.		1	I	X
a		n	root		pisprahho	146.03		noun	nom. pl. fem.	1	I	X
a		n	root		kant	146.06		verb	3rd pl. pres. ind.	1	I	X
a		n	root		zala	146.07		noun	gen. sg. fem.	1	I	X
a		n	root	ke	tan	148.03		part. pret.		1	I	X
a		n	root	ke	tan	148.07		part. pret.		1	I	X
a		n	root		lazzit	148.18		verb	3rd sg. pres. ind.	1	I	X
e		n	root		euuikemv	8.10		adj.	dat. sg. masc.	1	I	I
e		n	root		euuin	8.14	*	noun	acc.sg.fem.	1	I	I
e		n	root		leru	9.14		noun	dat. sg. fem.	1	I	I
e		n	root		euua	10.03		noun	gen. sg. fem.	1	I	I
e		n	root		lera	10.04		noun	nom. sg. fem.	1	I	I
e		n	root		pedero	10.11		adj/pr	gen. pl.	1	I	I
e		n	root		euuin	10.12	*	noun	acc.sg.fem.	1	I	I
e	y	y	root		eerhaftin	10.16		adj.	gen. sg. masc.	1	I	I
e		n	root		erist	11.08		adv.		1	I	I
e		n	root		euuic	12.03	*	adj.	nom. sg. neut.	1	I	I
e		n	root		leru	12.18		verb	1st sg. pres. ind.	1	I	I

e	n	root		euuigan	13.09		adj.	acc. sg. masc.	1	I
e	y	root		seer	13.11		noun	acc. sg. neut.	1	I
e	n	root		er	13.15		conj.		1	I
e	n	root		se	13.17		interj.		1	I
e	y	root		see	14.01		interj.		1	I
e	y	root		seer	15.02		noun	acc. sg. neut.	1	II
e	n	root		erlos	16.08		adv.		1	II
e	n	root		erhafter	16.17		adj.	nom. sg. masc.	1	II
e	n	root		erista	17.09		adj.	nom. sg. fem.	1	II
e	y	root	ki	leerte	17.18		part. pret.	nom. pl. masc.	1	II
e	y	root	ki	leerte	17.18		part. pret.	nom. pl. masc.	1	II
e	n	root		euu	18.15		noun	dat. sg. fem.	1	II
e	n	root		meririn	19.17		adj.	gen. sg. masc.	1	II
e	n	root		lerran	20.06		verb	infinitive	1	II
e	n	root		lera	20.07		noun	nom. sg. fem.	1	II
e	n	root		lera	20.11		noun	gen. sg. fem.	1	II
e	n	root		peidero	20.12		adj/pr	gen. pl.	1	II
e	n	root		lera	21.12		noun	nom. sg. fem.	1	II
e	y	root		meer	21.14		adv.		1	II
e	n	root		lerjt	22.01		verb	3rd sg. pres. ind.	1	II
e	n	root		euua	22.07		noun	acc. sg. masc.	1	II
e	y	root		meer	22.13		adv.		1	II
e	n	root		lerv	23.14		noun	dat. sg. fem.	1	II
e	n	root		erhaftii	24.03		noun	acc. sg. fem.	1	II
e	n	root		euuurtjn	24.14		noun	gen. sg. masc.	1	II

e	y	root		eervvirdigoron	24.15		noun	acc. pl. masc. comp.	1	II
e	n	root		eristun	24.18		adj.	dat. sg. fem.	1	II
e	n	root		sela	25.08		noun	acc. sg. fem.	1	II
e	y	root		meer	25.10		adv.		1	II
e	y	root		meer	25.11		adv.		1	II
e	n	root		sela	25.13		noun	acc. pl. fem.	1	II
e	n	root		selono	26.05		noun	nom. pl. fem.	1	II
e	y	root		meer	26.06		adv.		1	II
e	n	root		selo	26.09		noun	acc. pl. fem.	1	II
e	n	root		ehtj	26.12			dat. sg. fem.	1	II
e	n	root		erjst	26.13		adv.		1	II
e	n	root		selo	26.17		noun	acc. pl. fem.	1	II
e	n	root		selono	27.04		noun	nom. pl. fem.	1	II
e	n	root		sela	27.06		noun	gen. sg. fem.	1	II
e	y	root		meer	28.08		adv.		1	II
e	n	root		herostono	29.10		adj.	gen. pl. masc.	1	II
e	n	root		erist	29.15		adv.		1	II
e	y	root		eeren	30.03		verb	infinitive	1	II
e	n	root		serazzantan	30.11		part. pres.	acc. sg. masc.	1	II
e	y	root		seer	30.14		noun	acc. sg. neut.	1	II
e	y	root		meer	31.04		adv.		1	III
e	n	root		euuigan	31.14		adj.	acc. sg. masc.	1	III
e	n	root		heririn	32.03		adj.	dat. sg. masc.	1	III
e	n	root		er	33.03		adv.		1	III
e	n	root		er	33.03	*	conj.		1	III

e	n	root		heroston	33.09		adj.		acc. pl. masc.	1	III
e	n	root		ereen	33.09		verb		infinitive	1	III
e	n	root		er	33.11		adv.			1	III
e	y	root		leera	33.14		noun		nom. pl. fem.	1	III
e	n	root		erista	34.09	*	adj.		nom. sg. masc. sup.	1	III
e	n	root		euuigin	34.15		adj.		gen. sg. masc.	1	III
e	n	root		meririn	34.16		adj.		dat. sg. masc.	1	III
e	n	root		lerarum	35.02		noun		dat. pl. masc.	1	III
e	n	root		pedo	35.13		adj/pr		nom. fem	1	III
e	n	root		euuigemv	35.14		adj.		dat. sg. masc.	1	III
e	n	root		meriroom	36.13		adj.		dat. pl.	1	III
e	y	root		meer	37.06		adv.			1	III
e	y	root		meer	37.16		adv.			1	III
e	y	root		leerran	38.07		verb		infinitive	1	III
e	n	root		herjrjn	38.09		adj.		dat. sg. masc.	1	III
e	n	root		eruirdii	38.10		noun		dat. sg. fem.	1	III
e	y	root		meer	38.10		adv.			1	III
e	n	root		euuigiv	38.13		adj.		acc. pl. neut.	1	III
e	n	root		sela	39.10		noun		acc. sg. fem.	1	III
e	n	root		sela	40.11		noun		acc. sg. fem.	1	III
e	n	root		erjsto	40.15		adj.		nom. sg. masc.	1	III
e	n	root		euuigan	41.04		adj.		acc. sg. masc.	1	III
e	n	root	ke	lerjt	42.12		part. pret.			1	III
e	n	root		erhafter	44.08		adj.		nom. sg. masc.	1	III
e	n	root		era	45.02				acc. sg. fem.	1	III



e	n	root		merorin	45.05		adj.		dat. sg. masc.	1	III
e	n	root		heririn	46.13		adj.		dat. sg. masc.	1	III
e	n	root		erlosida	48.01		noun		acc. sg. fem.	2	IV
e	n	root		merorono	49.05		adj.		gen. pl. masc.	2	IV
e	n	root		er	51.10		adv.			2	IV
e	n	root		mer	52.04		adv.			3	IV
e	n	root		erjst	53.01		adv.			3	IV
e	n	root		ero	54.03		noun		dat. sg. fem.	3	IV
e	n	root		eruirdi	54.03		noun		dat. sg. fem.	3	IV
e	n	root		euua	54.05		noun		gen. sg. fem.	3	IV
e	n	root		lerarum	54.08		noun		dat. pl. masc.	3	IV
e	n	root		euu	55.07		noun		dat. sg. fem.	3	IV
e	n	root		eruirti	56.08		noun		dat. sg. fem.	3	IV
e	n	root		euu	56.17		noun		dat. sg. fem.	3	IV
e	n	root		eru (heru)	57.03				dat. sg. fem.	3	IV
e	n	root		erjst	58.01		adv.			3	IV
e	n	root		zuene	59.01		num		nom. masc.	3	IV
e	n	root		e[rj]sto	59.06	*	adj.		nom. sg. masc. sup.	3	IV
e	n	root		herorjn	60.01		adj.		dat. sg. masc.	3	IV
e	n	root		erjsta	62.15		adj.		nom. sg. fem.	3	IV
e	n	root		erjst (herjst)	64.10		adv.			3	V
e	n	root		mer	70.03		adv.			3	V
e	n	root		herjrom	72.17		adj.		dat. pl. masc.	3	V
e	n	root		herjrono	73.07		adj.		gen. pl. masc.	3	V
e	n	root		erhaftaz	77.14		adj.		nom. sg. neut.	3	V

e	n	root		sela	81.14		noun	acc. sg. fem.	1	VI
e	n	root		eht	82.04			acc. sg. fem.	1	VI
e	n	root		eht	82.08			*unclear	1	VI
e	n	root		eht	82.12		noun	nom. sg. fem.	1	VI
e	n	root		mera	83.05		adj.	nom. sg. fem.	1	VI
e	n	root		mera	86.17		adj.	nom. sg. neut.	3	VI
e	n	root		meroom	87.06		adj.	dat. pl. fem.	1	VI
e	n	root		erhaftju	91.05		adj.	nom. sg. fem.	1	VI
e	n	root		mer	92.12		adv.		3	VI
e	n	root		heroro	92.16		adj.	nom. sg. masc. comp.	3	VI
e	n	root		mera	94.07		adj.	nom. sg. fem.	3	VI
e	n	root	er	chertiv	94.10		part. pret.	nom. sg. fem.	3	VI
e	n	root		merom	94.18		adj.	dat. pl. masc.	3	VI
e	n	root		mer	95.17		adv.		3	VII
e	n	root		herostin	95.18		adj.	gen. sg. masc.	3	VII
e	n	root		er	96.16		adv.		1	VII
e	n	root		sela	97.16		noun	nom. pl. fem.	1	VII
e	n	root		erhaftost	100.10		adv.	superlative	1	VII
e	n	root		euu	102.09		noun	dat. sg. fem.	1	VII
e	n	root		er	103.16		adv.		1	VII
e	n	root		merun	106.03		adj.	dat. sg. fem.	3	VII
e	n	root		merun	107.01		adj.	dat. sg. fem.	3	VII
e	n	root		selom	107.02		noun	dat. pl. fem.	3	VII
e	n	root		herorom	107.05		adj.	dat. pl. masc.	3	VII
e	n	root		selu	108.05		noun	gen. sg. fem.	3	VII

e	n	root		pedo	108.09		adj/pr	acc. fem.	3	VII
e	n	root		erjston	108.12		adj.	dat. sg. fem.	3	VII
e	n	root		erjstin	109.18		adj.	dat. sg. neut.	3	VII
e	n	root		zuene	110.18		num	nom. masc	3	VII
e	n	root		heroston	110.18		adj.	nom. pl. masc.	3	VII
e	n	root		mer	117.16		adv.		3	VIII
e	n	root		eru	117.17			acc. sg. fem.	3	VIII
e	n	root		mer	120.14		adv.		3	VIII
e	n	root		herorun	124.01		adj.	acc. sg. masc.	3	VIII
e	n	root		herosto	126.04		adj.	nom. sg. masc. sup.	3	VIII
e	n	root		evva	126.15		noun	nom. sg. fem.	3	VIII
e	n	root		euu	127.12		noun	dat. sg. fem.	3	IX
e	n	root		ervarto	132.05	*	noun	gen. pl. masc.	3	IX
e	n	root		mer	132.18		adv.		3	IX
e	n	root		ervirdii	133.06		noun	dat. sg. fem.	3	IX
e	n	root		evvartvames	133.06		noun	gen. sg. masc.	3	IX
e	n	root		erliho	134.17		adv.		3	IX
e	n	root		vvenekii	134.18		noun	nom. sg. fem.	3	IX
e	n	root	ke	lekit	135.06	*	part. pret.		3	IX
e	n	root		euuarto	135.12		noun	gen. pl. masc.	3	IX
e	n	root		mervn	135.13		adj.	dat. sg. fem.	3	IX
e	n	root		euuartvam	136.08		noun	acc. sg. masc.	3	IX
e	n	root		mer	136.13		adv.		3	IX
e	n	root		evvartvames	136.14		noun	gen. sg. masc.	3	IX
e	n	root		mer	136.17		adv.		3	IX

e	n	root		mer	136.17		adv.			3	IX
e	n	root		evvart	137.09		noun		nom. sg. masc.	3	IX
e	n	root		herorjn	138.18		adj.		dat. sg. neut.	1	IX
e	n	root		erjrun	139.07		adj.		dat. sg. fem. comp.	1	IX
e	n	root		herjrom	139.11		adj.		dat. pl. masc.	1	IX
e	n	root		eruiirdii	139.18		noun		nom. sg. fem.	1	IX
e	n	root		eru	140.03				dat. sg. fem.	1	IX
e	n	root		era	140.06				gen. sg. fem.	1	IX
e	n	root		herorin	140.07		adj.		dat. sg. masc.	1	IX
e	n	root		merorjn	140.08		adj.		dat. sg. masc.	1	IX
e	n	root		herjro	140.11		adj.		nom. sg. masc. comp.	1	IX
e	n	root		eru	140.12				dat. sg. fem.	1	IX
e	n	root		lerv	141.09		noun		gen. sg. fem.	1	IX
e	n	root	ke	lertan	142.12		pp		acc. sg. masc.	1	IX
e	n	root	ke	flehrit	146.06		part. pret.			1	X
i	n	root		vvi hono	8.02		adj.		gen. pl.	1	I
i	n	root		lihhamun	8.02		noun		nom. pl. masc.	1	I
i	n	root		sinera	8.06		poss. pron.		gen. sg. fem.	1	I
i	n	root		vvizzi	8.08		noun		acc. pl. neut.	1	I
i	n	root		libe	8.09		noun		dat. sg. masc.	1	I
i	n	root		lihhamin	8.11		noun		dat. sg. masc.	1	I
i	n	root		lib	8.12		noun		acc. sg. masc.	1	I
i	n	root		libes	9.05		noun		gen. sg. masc.	1	I
i	n	root		libes	9.10		noun		gen. sg. masc.	1	I
i	n	root		si	9.12		verb		3rd sg. pres. opt.	1	I

i		y	root		siin	9.13	*	reflex. pron.	gen.sg.	1	I
i		n	root		sineru	9.14		poss. pron.	dat. sg. fem.	1	I
i		n	root		rihhes	9.16		noun	gen. sg. neut.	1	I
i		n	root		sine	9.17		poss. pron.	nom. pl. neut.	1	I
i		n	root		ljb	10.05		noun	nom. sg. masc.	1	I
i		n	root	ke	uuihter	10.06		part. pret.	nom. sg. masc.	1	I
i		n	root		uuiho	10.07		adj.	acc. pl. fem.	1	I
i		n	root		sinem	10.08		poss. pron.	dat. pl. neut.	1	I
i		n	root		midantij	10.10		part. pres.		1	I
i		n	root		dines	10.15		poss. pron.	gen. sg. neut.	1	I
i		n	root	ke	liti	11.02		verb	2nd sg. pret. ind.	1	I
i		n	root		sinem	11.16		poss. pron.	dat. pl. neut.	1	I
i		n	root		ciitj	11.16		noun	gen. sg. fem.	1	I
i		n	root		siniv	11.18		poss. pron.	acc. pl. neut.	1	I
i		n	root		uuizze	12.04		noun	dat. sg. neut.	1	I
i		y	root		ciit	12.07		noun	nom. sg. fem.	1	I
i		n	root		sina	12.12		poss. pron.	acc. sg. fem.	1	I
i		n	root		libes	13.01		noun	gen. sg. masc.	1	I
i		n	root		sinan	13.04		poss. pron.	acc. sg. masc.	1	I
i		n	root		ljb	13.05		noun	acc. sg. masc.	1	I
i		y	root		ljib	13.09		noun	acc. sg. masc.	1	I
i		n	root		dina	13.10		poss. pron.	acc. pl. masc.	1	I
i		n	root		dineru	13.10		poss. pron.	dat. sg. fem.	1	I
i		n	root		miniu	13.14		poss. pron.	nom. pl. neut.	1	I
i		n	root		miniu	13.15		poss. pron.	nom. pl. neut.	1	I

i	n	root		ljbes	14.02		noun	gen. sg. masc.	1	I
i	n	root		sine	14.06		poss. pron.	acc. pl. masc.	1	I
i	n	root		sinemv	14.08		poss. pron.	acc. sg. neut.	1	I
i	n	root		rihhe	14.08		noun	dat. sg. neut.	1	I
i	n	root		rihhes	14.08		noun	gen. sg. neut.	1	I
i	n	root		si	14.10		verb	3rd sg. pres. opt.	1	I
i	n	root		dineru	14.13		poss. pron.	dat. sg. fem.	1	I
i	n	root		uuihemu	14.14		adj.	dat. sg. masc.	1	I
i	n	root		dinemu	14.14		poss. pron.	dat. sg. masc.	1	I
i	n	root		sineru	15.02		poss. pron.	dat. sg. fem.	1	II
i	n	root		sinemv	15.02		poss. pron.	dat. sg. neut.	1	II
i	n	root		sinemv	15.03		poss. pron.	dat. sg. masc.	1	II
i	n	root		sina	15.06		poss. pron.	acc. sg. fem.	1	II
i	n	root		sines	15.07		poss. pron.	gen. sg. neut.	1	II
i	n	root	far	spientj	15.07		part. pres.		1	II
i	n	root		sin	15.08		poss. pron.	nom. sg. masc.	1	II
i	n	root		dinemv	15.16		poss. pron.	dat. sg. masc.	1	II
i	n	root		sineru	15.17		poss. pron.	gen. sg. neut.	1	II
i	n	root		miniv	16.04		poss. pron.	acc. pl. neut.	1	II
i	n	root	ke	ljhhison	16.05		verb	1st sg. pres. ind.	1	II
i	n	root		sinaz	16.06		poss. pron.	acc. sg. neut.	1	II
i	n	root		vviiheem	16.11		adj.	dat. pl.	1	II
i	n	root		sineem	16.11		poss. pron.	dat. pl. masc.	1	II
i	n	root		libes	16.14		noun	gen. sg. masc.	1	II
i	n	root		sines	17.03		poss. pron.	gen. sg. neut.	1	II

i	n	root		himilrihhes	17.06		noun	gen. sg. neut.	1	II
i	n	root		libes	17.14		noun	gen. sg. masc.	1	II
i	n	root		lihhisarro	18.08		noun	gen. pl. masc.	1	II
i	n	root		plivves	18.10		noun	gen. sg. neut.	1	II
i	n	root		vvihaz	18.18		adj.	acc. sg. neut.	1	II
i	n	root		ljb	19.03		noun	acc. sg. masc.	1	II
i	n	root		suuihharro	19.03		noun	gen. pl. masc.	1	II
i	n	root		ljhhisarum	19.09		noun	dat. pl. masc.	1	II
i	n	root		libe	19.10		noun	dat. sg. masc.	1	II
i	n	root		suuigeen	19.11		verb	infinitive	1	II
i	y	root		sii	20.05		verb	3rd sg. pres. opt.	1	II
i	n	root		sinaz	20.07		poss. pron.	acc. sg. neut.	1	II
i	n	root		si	20.09		verb	3rd sg. pres. opt.	1	II
i	y	root		sii	20.10		verb	3rd sg. pres. opt.	1	II
i	n	root		sinera	20.10		poss. pron.	gen. sg. fem.	1	II
i	n	root		sinera	20.16		poss. pron.	gen. sg. fem.	1	II
i	n	root		hiuiskes	20.16		noun	gen. sg. neut.	1	II
i	n	root		dinaz	21.05		poss. pron.	acc. sg. neut.	1	II
i	n	root		vvizzagin	21.05		noun	dat. sg. masc.	1	II
i	n	root		dina	21.06		poss. pron.	acc. sg. fem.	1	II
i	n	root		minemv	21.06		poss. pron.	dat. sg. masc.	1	II
i	y	root		diin	21.07		poss. pron.	acc. sg. fem.	1	II
i	n	root		sinera	21.09		poss. pron.	gen. sg. fem.	1	II
i	n	root		si	21.10		verb	3rd sg. pres. opt.	1	II
i	n	root		vvizzi	21.10		noun	nom. sg. neut.	1	II

i	n	root	sinem	21.12		poss. pron.	dat. pl. masc.	1	II
i	n	root	zuuifalda	21.12		adj.	nom. sg. fem.	1	II
i	n	root	vvihiiv	21.13		adj.	acc. pl. neut.	1	II
i	n	root	sinem	21.17		poss. pron.	dat. pl. fem.	1	II
i	n	root	sineem	22.02		poss. pron.	dat. pl. fem.	1	II
i	n	root	si	22.04		verb	3rd sg. pres. opt.	1	II
i	n	root	miniv	22.06		poss. pron.	acc. pl. neut.	1	II
i	n	root	mina	22.07		poss. pron.	acc. sg. fem.	1	II
i	n	root	dinan	22.07		poss. pron.	acc. sg. masc.	1	II
i	n	root	fietos	22.08		verb	2nd sg. pret. ind.	1	II
i	n	root	mina	22.08		poss. pron.	acc. sg. fem.	1	II
i	n	root	miniu	22.09		poss. pron.	acc. pl. neut.	1	II
i	n	root	dines	22.10		poss. pron.	gen. sg. masc.	1	II
i	n	root	dinemv	22.11		poss. pron.	dat. sg. neut.	1	II
i	n	root	si	22.12		verb	3rd sg. pres. opt.	1	II
i	n	root	si	22.13		verb	3rd sg. pres. opt.	1	II
i	n	root	si	22.16		verb	3rd sg. pres. opt.	1	II
i	n	root	friger	22.16		adj.	nom. sg. masc.	1	II
i	n	root	si	22.18		verb	3rd sg. pres. opt.	1	II
i	n	root	uuihemv	23.04		adj.	dat. sg. masc.	1	II
i	n	root	frjer	23.04		adj.	nom. sg. masc.	1	II
i	y	root	sii	23.10		verb	3rd sg. pres. opt.	1	II
i	n	root	si	23.12		verb	3rd sg. pres. opt.	1	II
i	n	root	sineru	23.14		poss. pron.	dat. sg. fem.	1	II
i	n	root	citi	24.02		noun	acc. pl. fem.	1	II



i	n	root		citum	24.02		noun		dat. pl. fem.	1	II
i	n	root	aba	snide	24.13		verb		3rd sg. pres. opt.	1	II
i	n	root		lihhamin	25.03		noun		gen. sg. masc.	1	II
i	n	root		dinaz	25.07		poss. pron.		acc. sg. neut.	1	II
i	n	root		sina	25.08		poss. pron.		acc. sg. fem.	1	II
i	n	root		si	26.02		verb		3rd sg. pres. opt.	1	II
i	n	root	ze	risenteem	26.08		adj.		dat. pl. fem.	1	II
i	n	root		rihhi	26.13		noun		acc. sg. neut.	1	II
i	n	root		sinaz	26.13		poss. pron.		acc. sg. neut.	1	II
i	n	root		sinero	27.01		poss. pron.		gen. pl. masc.	1	II
i	n	root		zuuiual	27.03		noun		acc. sg. masc.	1	II
i	n	root		zuifal	27.05		noun		acc. sg. masc.	1	II
i	n	root		sinera	27.06		poss. pron.		gen. sg. fem.	1	II
i	n	root		sineem	27.09		poss. pron.		dat. pl. (masc.)	1	II
i	n	root		sineem	27.10		poss. pron.		dat. pl. fem.	1	II
i	n	root		vvisse	27.15		verb		3rd sg. pres. opt.	1	II
i	n	root		vvisan	28.02		verb		infinitive	1	II
i	n	root	int	rihhit	28.04		verb		3rd sg. pres. ind.	1	II
i	n	root	ke	risit	28.11		verb		3rd sg. pres. ind.	1	II
i	n	root		sin	28.14		verb		3rd pl. pres. opt.	1	II
i	n	root		si	28.15		verb		3rd sg. pres. opt.	1	II
i	n	root		si	28.17		verb		3rd sg. pres. opt.	1	II
i	n	root		sinemv	28.18		poss. pron.		dat. sg. masc.	1	II
i	n	root		fljzzan	29.02		verb		infinitive	1	II
i	n	root		zuifal	29.06		noun		acc. sg. masc.	1	II

i	n	root		sineem	29.07		poss. pron.	dat. pl. fem.	1	II
i	n	root		si	30.06		verb	3rd sg. pres. opt.	1	II
i	n	root		lihhamun	30.06		noun	acc. sg. masc.	1	II
i	n	root		uuison	30.09		verb	infinitive	1	II
i	y	root		ciit	30.14		noun	acc. sg. fem.	1	II
i	n	root		fiant	31.03		noun	acc. pl. masc.	1	III
i	n	root		vvihan	31.04		verb	infinitive	1	III
i	n	root		vvintrunchal	31.07		adj.	nom. sg. neut.	1	III
i	n	root		sinan	31.10		poss. pron.	acc. sg. masc.	1	III
i	n	root		ljib	31.14		noun	acc. sg. masc.	1	III
i	n	root		ljibes	31.18		noun	gen. sg. masc.	1	III
i	n	root		sines	31.18		poss. pron.	gen. sg. neut.	1	III
i	n	root		cityj	31.19		noun	gen. sg. fem.	1	III
i	n	root		zuuifal	32.01		noun	acc. sg. masc.	1	III
i	n	root		sinemv	32.02		poss. pron.	dat. sg. neut.	1	III
i	n	root		sinan	32.04		poss. pron.	acc. sg. masc.	1	III
i	n	root		Italjv	32.06		adj.	acc. pl. neut.	1	III
i	n	root		vvihho	32.09		adj.	acc. pl. fem.	1	III
i	n	root		siniv	32.10		poss. pron.	acc. pl. neut.	1	III
i	n	root	ke	ljitaniv	32.11		part. pret.	acc. pl. neut.	1	III
i	n	root		fien	32.15		verb	infinitive	1	III
i	n	root		vvihaz	33.03		adj.	nom. sg. neut.	1	III
i	n	root		fien	33.06		verb	infinitive	1	III
i	y	root		fljiz	33.07		noun	acc. sg. masc.	1	III
i	n	root		fianta	33.10		noun	acc. pl. masc.	1	III

i	n	root	ke	risit	34.11		verb	3rd sg. pres. ind.	1	III
i	n	root		vvi haz	34.13		adj.	acc. sg. neut.	1	III
i	n	root		libes	34.15		noun	gen. sg. masc.	1	III
i	n	root		si	34.17		verb	3rd sg. pres. opt.	1	III
i	n	root		si	35.09		verb	3rd sg. pres. opt.	1	III
i	y	root		siin	35.14		verb	3rd pl. pres. opt.	1	III
i	n	root		libe	35.14		noun	dat. sg. masc.	1	III
i	y	root	ke	criiffant	35.16		verb	3rd pl. pres. ind.	1	III
i	n	root		ljbe	35.18		noun	dat. sg. masc.	1	III
i	n	root		zuifal	36.03		noun	acc. sg. masc.	1	III
i	n	root		minan	36.06		poss. pron.	acc. sg. masc.	1	III
i	n	root	ke	risit	36.16		verb	3rd sg. pres. ind.	1	III
i	n	root		sinaz	37.04		poss. pron.	acc. sg. neut.	1	III
i	n	root		vvizzi	37.06		noun	acc. sg. neut.	1	III
i	n	root		vvizzago	37.09		noun	nom. sg. masc.	1	III
i	n	root		mine	37.10		poss. pron.	acc. pl. masc.	1	III
i	n	root		mineru	37.11		poss. pron.	dat. sg. fem.	1	III
i	n	root		minemv	37.11		poss. pron.	dat. sg. masc.	1	III
i	n	root		suuketa	37.13		verb	1st sg. pret. ind.	1	III
i	n	root		uuizzago	37.14		noun	nom. sg. masc.	1	III
i	n	root		suuigalji	37.15		noun	acc. sg. fem.	1	III
i	n	root		suuigeen	37.15		verb	infinitive	1	III
i	n	root		vvizzi	37.17		noun	acc. sg. neut.	1	III
i	n	root		uuuheem	37.18		adj.	dat. pl.	1	III
i	n	root		suuigilji	38.02		noun	gen. sg. fem.	1	III

i	y	root		liib	38.05		noun	nom. sg. masc.	1	III
i	n	root	ke	risit	38.07		verb	3rd sg. pres. ind.	1	III
i	n	root		suuigeen	38.07		verb	infinitive	1	III
i	n	root		si	38.10		verb	3rd sg. pres. opt.	1	III
i	n	root		uuizzago	39.05		noun	nom. sg. masc.	1	III
i	n	root		minaz	39.06		poss. pron.	acc. sg. neut.	1	III
i	n	root		miniu	39.07		poss. pron.	nom. pl. neut.	1	III
i	n	root		mina	39.10		poss. pron.	acc. sg. fem.	1	III
i	n	root		sina	39.11		poss. pron.	acc. sg. fem.	1	III
i	n	root		mina	39.12		poss. pron.	acc. sg. fem.	1	III
i	n	root		ljbes	39.15		noun	gen. sg. masc.	1	III
i	n	root	vf	stiganteem	39.18		part. pres.	dat. pl. masc.	1	III
i	n	root	vf	stigante	40.02		part. pres.	nom. pl. masc.	1	III
i	n	root	nidar	stigante	40.02		part. pres.	nom. pl. masc.	1	III
i	n	root		zuifal	40.04		noun	acc. sg. masc.	1	III
i	n	root	nidar	stigan	40.06		verb	infinitive	1	III
i	n	root	vf	stigan	40.07		verb	infinitive	1	III
i	n	root		si	40.09		verb	3rd sg. pres. opt.	1	III
i	n	root		lihhamun	40.11		noun	acc. sg. masc.	1	III
i	n	root	vf	stiganteem	40.14		part. pres.	dat. pl. masc.	1	III
i	n	root		si	40.18		verb	3rd sg. pres. opt.	1	III
i	n	root		ljbe	41.03	*	noun	acc. sg. masc.	1	III
i	n	root		sinemu	41.05		poss. pron.	dat. sg. masc.	1	III
i	n	root		citj	41.06		noun	gen. sg. fem.	1	III
i	y	root		iille	41.10		verb	3rd sg. pres. opt.	1	III

i	n	root	aba	snidan	41.10		verb	infinitive	1	III
i	n	root		sino	41.12		poss. pron.	acc. pl. fem.	1	III
i	n	root		citj	41.12		noun	gen. sg. fem.	1	III
i	n	root		citj	41.14		noun	gen. sg. fem.	1	III
i	n	root		vvizzago	41.16		noun	nom. sg. masc.	1	III
i	n	root		mine	42.03		poss. pron.	acc. pl. masc.	1	III
i	n	root		si	42.05		verb	3rd sg. pres. opt.	1	III
i	n	root		sine	42.06		poss. pron.	acc. pl. masc.	1	III
i	n	root		sinemu	42.07		poss. pron.	dat. sg. neut.	1	III
i	n	root		minemu	42.09		poss. pron.	dat. sg. masc.	1	III
i	n	root		dineem	42.12		poss. pron.	dat. pl. masc.	1	III
i	n	root		si	42.13		verb	3rd sg. pres. opt.	1	III
i	y	root		siin	42.13		poss. pron.	nom. sg. masc.	1	III
i	n	root		uuihiv	42.19		adj.	nom. sg. fem.	1	III
i	n	root		vvizzago	43.08		noun	nom. sg. masc.	1	III
i	n	root		miniv	43.09		poss. pron.	nom. sg. fem.	1	III
i	y	root		pīi	43.11	*	adv		1	III
i	n	root		dineem	43.14		poss. pron.	dat. pl. fem.	1	III
i	n	root		citj	44.04		noun	gen. sg. fem.	1	III
i	n	root		citj	44.06		noun	gen. sg. fem.	1	III
i	n	root		ljppantj	44.07		part. pres.		1	III
i	n	root		citj	44.08		noun	gen. sg. fem.	1	III
i	n	root		suuigeta	44.11		verb	1st sg. pret. ind.	1	III
i	n	root		sina	44.14	*	poss. pron.	acc. pl. fem.	1	III
i	n	root		si	44.16		verb	3rd sg. pres. opt.	1	III

i	n	root		minan	44.17		poss. pron.	acc. sg. masc.	1	III
i	n	root		vvizzi	45.01		noun	acc. sg. neut.	1	III
i	n	root		suuigentun	45.11		part. pres.	dat. sg. fem.	1	III
i	n	root		si	45.12		verb	3rd sg. pres. opt.	1	III
i	n	root	ke	lide	45.13		verb	3rd sg. pres. opt.	1	III
i	n	root		si	45.16		verb	3rd sg. pres. opt.	1	III
i	n	root		dinaz	45.16		poss. pron.	acc. sg. neut.	1	III
i	n	root		sin	46.05		verb	3rd pl. pres. opt.	1	III
i	n	root		millu	47.03		noun	dat. sg. fem.	1	IV
i	n	root		sinemv	47.08		poss. pron.	dat. sg. neut.	1	IV
i	n	root		sinemv	47.10		poss. pron.	dat. sg. neut.	1	IV
i	n	root	jnt	rih	47.12		verb	2nd sg. pres. imp.	1	IV
i	n	root		dinan	47.12		poss. pron.	acc. sg. masc.	1	IV
i	n	root		siniv	47.14		poss. pron.	nom. sg. fem.	1	IV
i	n	root		mina	47.15		poss. pron.	acc. sg. fem.	1	IV
i	n	root		miniv	47.16		poss. pron.	acc. pl. neut.	1	IV
i	n	root		minaz	47.18		poss. pron.	acc. sg. neut.	1	IV
i	n	root		mineru	48.01		poss. pron.	dat. sg. fem.	2	IV
i	n	root		diniu	49.01		poss. pron.	acc. pl. neut.	2	IV
i	n	root		suuigalj	49.08		noun	acc. sg. fem.	2	IV
i	n	root		si	49.15		verb	3rd sg. pres. opt.	2	IV
i	n	root		sina	49.17		poss. pron.	acc. sg. fem.	2	IV
i	n	root		si	50.04		verb	3rd sg. pres. opt.	2	IV
i	n	root		lihamin	50.09		noun	dat. sg. masc.	2	IV
i	n	root		si	50.14		verb	3rd sg. pres. opt.	2	IV

i		n	root		sinem	50.19		poss. pron.	dat. pl. fem.	1	IV
i		n	root		citj	50.19		noun	gen. sg. fem.	1	IV
i		n	root		miniu	51.03		poss. pron.	acc. pl. neut.	2	IV
i		n	root	ufki	stikanem	51.07		part. pret.	dat. pl. masc.	2	IV
i		n	root		sinan	51.16		poss. pron.	acc. sg. masc.	2	IV
i		n	root		uiihemv	51.17		adj.	dat. sg. masc.	2	IV
i		n	root		uvilu	52.03		noun	dat. sg. fem.	3	IV
i		n	root		si	52.11		verb	3rd sg. pres. opt.	3	IV
i		n	root		cit	52.12		noun	nom. sg. fem.	3	IV
i		n	root		sin	52.16		verb	3rd pl. pres. opt.	3	IV
i		n	root		si	53.10		verb	3rd sg. pres. opt.	3	IV
i		n	root		uiihe	53.13		verb	3rd sg. pres. opt.	3	IV
i		n	root		sin	53.14		verb	3rd pl. pres. opt.	3	IV
i		n	root		drio	53.16		num	nom. fem	3	IV
i	y		root		drji	53.17		num		3	IV
i		n	root		uiihun	54.04		adj.	gen. sg. fem.	3	IV
i		n	root		drjmissu	54.04		noun	gen. sg. fem.	3	IV
i		n	root		drjm	54.10		num	dat. fem.	3	IV
i		n	root		sin	54.11		verb	3rd pl. pres. opt.	3	IV
i		n	root		si	54.13		verb	3rd sg. pres. opt.	3	IV
i		n	root		sin	54.16		verb	3rd pl. pres. opt.	3	IV
i		n	root		si	55.03		verb	3rd sg. pres. opt.	3	IV
i		n	root		sin	55.05		verb	3rd pl. pres. opt.	3	IV
i		n	root		drjm	55.06		num	dat. fem.	3	IV
i		n	root		si	55.08		verb	3rd sg. pres. opt.	3	IV

i	n	root		si	55.09		verb	3rd sg. pres. opt.	3	IV
i	n	root		sin	55.10		verb	3rd pl. pres. opt.	3	IV
i	n	root		sin	55.13		verb	3rd pl. pres. opt.	3	IV
i	n	root		citim	55.16		noun	dat. pl. fem.	3	IV
i	n	root		si	55.18		verb	3rd sg. pres. opt.	3	IV
i	n	root		sin	56.03		verb	3rd pl. pres. opt.	3	IV
i	n	root		si	56.06		verb	3rd sg. pres. opt.	3	IV
i	n	root		sin	56.09		verb	3rd pl. pres. opt.	3	IV
i	n	root		drij	56.12		num	*defective	3	IV
i	n	root		si	56.12		verb	3rd sg. pres. opt.	3	IV
i	n	root		uuihantemv	56.15		part. pres.	dat. sg. masc.	3	IV
i	n	root		sin	56.16		verb	3rd pl. pres. opt.	3	IV
i	n	root		si	57.05		verb	3rd sg. pres. opt.	3	IV
i	n	root	ki	rjsit	57.07		verb	3rd sg. pres. ind.	3	IV
i	n	root		uuihi	57.07		noun	dat. sg. fem.	3	IV
i	n	root		citi	57.09		noun	gen. sg. fem.	3	IV
i	n	root		si	57.11		verb	3rd sg. pres. opt.	3	IV
i	n	root		si	57.14		verb	3rd sg. pres. opt.	3	IV
i	n	root		si	58.02		verb	3rd sg. pres. opt.	3	IV
i	n	root		si	58.04		verb	3rd sg. pres. opt.	3	IV
i	n	root		uuihii	58.06		noun	nom. pl. fem.	3	IV
i	n	root		si	58.14		verb	3rd sg. pres. opt.	3	IV
i	n	root		si	58.15		verb	3rd sg. pres. opt.	3	IV
i	n	root		sin	59.01		verb	3rd pl. pres. opt.	3	IV
i	n	root		drijugosto	59.03		num	nom. masc	3	IV



i	n	root		si	59.07		verb	3rd sg. pres. opt.	3	IV
i	n	root		uizagom	59.09		noun	dat. pl. masc.	3	IV
i	n	root		sin	59.10		verb	3rd pl. pres. opt.	3	IV
i	n	root		sin	59.11		verb	3rd pl. pres. opt.	3	IV
i	n	root		si	60.01		verb	3rd sg. pres. opt.	3	IV
i	n	root		si	60.08		verb	3rd sg. pres. opt.	3	IV
i	n	root		si	60.09		verb	3rd sg. pres. opt.	3	IV
i	n	root		si	60.12		verb	3rd sg. pres. opt.	3	IV
i	n	root		si	60.14		verb	3rd sg. pres. opt.	3	IV
i	n	root		si	60.15		verb	3rd sg. pres. opt.	3	IV
i	n	root		si	60.16		verb	3rd sg. pres. opt.	3	IV
i	n	root		si	61.01		verb	3rd sg. pres. opt.	3	IV
i	n	root		si	61.11		verb	3rd sg. pres. opt.	3	IV
i	n	root	ki	uuihtiu	61.16		part. pret.	nom. sg. fem.	3	IV
i	n	root		citi	62.01		noun	gen. sg. fem.	3	IV
i	n	root		uuilom	62.02		noun	dat. pl. fem.	3	IV
i	n	root		citum	62.07		noun	dat. pl. fem.	3	IV
i	n	root		citim	62.15		noun	dat. pl. fem.	3	IV
i	n	root		uuiila	62.16		noun	nom. sg. fem.	3	IV
i	n	root		citi	62.18		noun	gen. sg. fem.	3	IV
i	n	root		si	63.03		verb	3rd sg. pres. opt.	3	V
i	n	root		drijo	63.03		num		3	V
i	n	root		si	63.07		verb	3rd sg. pres. opt.	3	V
i	y	root		drji	63.09		num		3	V
i	n	root		sin	63.15		verb	3rd pl. pres. opt.	3	V

i	n	root		si	64.03		verb	3rd sg. pres. opt.	3	V
i	n	root		citi	64.06		noun	gen. sg. fem.	3	V
i	n	root		uuihi	64.08	*	noun	nom.sg.fem	3	V
i	n	root		citi	64.14		noun	gen. sg. fem.	3	V
i	n	root		drjo	65.01		num		3	V
i	n	root		sin	65.10		verb	3rd pl. pres. opt.	3	V
i	n	root		sin	65.12		verb	3rd pl. pres. opt.	3	V
i	n	root		citi	65.16		noun	acc. pl. fem.	3	V
i	n	root		drj	65.16		num		3	V
i	n	root		sin	65.17		verb	3rd pl. pres. opt.	3	V
i	n	root		citi	66.06		noun	acc. pl. fem.	3	V
i	n	root		sin	66.07		verb	3rd pl. pres. opt.	3	V
i	n	root		si	66.11		verb	3rd sg. pres. opt.	3	V
i	n	root		si	66.13		verb	3rd sg. pres. opt.	3	V
i	n	root		si	67.06		verb	3rd sg. pres. opt.	3	V
i	n	root		si	67.12		verb	3rd sg. pres. opt.	3	V
i	n	root		si	67.17		verb	3rd sg. pres. opt.	3	V
i	n	root		libanto	67.18		verb	nom. sg. masc.	3	V
i	n	root	pi	lihchet	68.05		verb	3rd sg. pres. ind.	3	V
i	n	root		si	68.07		verb	3rd sg. pres. opt.	3	V
i	n	root		si	68.09		verb	3rd sg. pres. opt.	3	V
i	n	root		si	68.11		verb	3rd sg. pres. opt.	3	V
i	n	root		sinera	68.12		poss. pron.	gen. sg. fem.	3	V
i	n	root		uuihe	68.17		adj.	nom. pl. masc.	3	V
i	n	root		zuualunga	69.06		noun	dat. sg. fem.	3	V

i	n	root		sin	70.16		verb	3rd pl. pres. opt.	3	V
i	n	root		libes	70.17		noun	gen. sg. masc.	3	V
i	n	root		libbe	71.04		verb	3rd sg. pres. opt.	3	V
i	n	root		libbes	71.17		noun	gen. sg. masc.	3	V
i	n	root		si	73.11		verb	3rd sg. pres. opt.	3	V
i	n	root		lihchamlihera	73.16		adj.	dat. sg. fem.	3	V
i	n	root		imbiz	74.11		noun	acc. sg. masc./neut.	3	V
i	n	root		si	75.01		verb	3rd sg. pres. opt.	3	V
i	n	root		si	75.10		verb	3rd sg. pres. opt.	3	V
i	n	root		si	76.03		verb	3rd sg. pres. opt.	3	V
i	n	root	ka	lihchera	76.03		adj.	gen. sg. fem.	3	V
i	n	root	framki	uuisen	76.16		verb	3rd pl. pres. opt.	3	V
i	n	root		si	77.01		verb	3rd sg. pres. opt.	3	V
i	n	root		rjhchida	77.10		noun	acc. sg. fem.	3	V
i	n	root		sinem	78.02		poss. pron.	dat. pl. fem.	3	V
i	n	root		si	79.09		verb	3rd sg. pres. opt.	1	VI
i	n	root		isarne	79.09		noun	dat. sg. neut.	1	VI
i	n	root	aba	snidannes	79.09		verb	inf. gen	1	VI
i	n	root	ke	lidit	79.11		verb	3rd sg. pres. ind.	1	VI
i	n	root	ke	lide	79.12		verb	3rd sg. pres. opt.	1	VI
i	n	root	pi	smizze	79.13		verb	3rd sg. pres. opt.	1	VI
i	n	root		si	80.01		verb	3rd sg. pres. opt.	1	VI
i	n	root		si	80.02		verb	3rd sg. pres. opt.	1	VI
i	n	root		siniv	80.02		poss. pron.	nom. sg. fem.	1	VI
i	n	root		sin	80.14		verb	3rd pl. pres. opt.	1	VI

i	y	root		siin	80.15		verb		3rd pl. pres. opt.	1	VI
i	n	root		si	81.01		verb		3rd sg. pres. opt.	1	VI
i	y	root		riiffer	81.02		adj.		nom. sg. masc.	1	VI
i	n	root		si	81.06		verb		3rd sg. pres. opt.	1	VI
i	n	root		sin	81.08		verb		3rd pl. pres. opt.	1	VI
i	n	root	far	zihe	81.13		verb		3rd sg. pres. opt.	1	VI
i	n	root		sina	81.14		poss. pron.		acc. sg. fem.	1	VI
i	n	root		zuifal	82.02		noun		acc. sg. masc.	1	VI
i	n	root	ke	uuihtjv	82.05		part. pret.		acc. pl. masc.	1	VI
i	n	root		si	82.07		verb		3rd sg. pres. opt.	1	VI
i	n	root		si	82.13		verb		3rd sg. pres. opt.	1	VI
i	n	root		sineru	82.17		poss. pron.		dat. sg. fem.	1	VI
i	y	root		ljiblejta	83.01		noun		acc. sg. fem.	1	VI
i	n	root		lihhisode	83.01		noun		dat. sg. masc.	1	VI
i	n	root		si	83.03		verb		3rd sg. pres. opt.	1	VI
i	n	root		si	83.06		verb		3rd sg. pres. opt.	1	VI
i	n	root		ciŋim	83.09		noun		dat. pl. fem.	1	VI
i	n	root		sin	83.10		verb		3rd pl. pres. opt.	1	VI
i	n	root		isarnazzasum	83.14		noun		dat. pl. neut.	1	VI
i	n	root		si	84.07		verb		3rd sg. pres. opt.	3	VI
i	n	root	aba	snidanne	84.11		verb		inf. dat.	3	VI
i	n	root		lihchamon	84.16		noun		acc. pl. masc.	3	VI
i	n	root		sin	85.07		verb		3rd pl. pres. opt.	3	VI
i	n	root		si	85.14		verb		3rd sg. pres. opt.	3	VI
i	n	root		si	85.17		verb		3rd sg. pres. opt.	3	VI

i	n	root		si	86.03		verb	3rd sg. pres. opt.	3	VI
i	n	root		si	86.03		verb	3rd sg. pres. opt.	3	VI
i	n	root		si	86.04		verb	3rd sg. pres. opt.	3	VI
i	n	root		si	86.12		verb	3rd sg. pres. opt.	3	VI
i	n	root		si	86.14		verb	3rd sg. pres. opt.	3	VI
i	n	root		si	87.01		verb	3rd sg. pres. opt.	1	VI
i	n	root		si	87.04		verb	3rd sg. pres. opt.	1	VI
i	n	root		sin	87.06		verb	3rd pl. pres. opt.	1	VI
i	n	root		ciŋ	88.01		noun	gen. sg. fem.	1	VI
i	n	root		imbizze	88.01		noun	gen. sg. masc./neut.	1	VI
i	y	root		ljiblejta	88.02		noun	acc. sg. fem.	1	VI
i	n	root		sin	88.10		verb	3rd pl. pres. opt.	1	VI
i	n	root		si	89.02		verb	3rd sg. pres. opt.	1	VI
i	n	root		sin	89.18		verb	3rd pl. pres. opt.	1	VI
i	n	root		si	90.05		verb	3rd sg. pres. opt.	1	VI
i	n	root		si	90.06		verb	3rd sg. pres. opt.	1	VI
i	n	root		sin	90.12		verb	3rd pl. pres. opt.	1	VI
i	n	root		si	91.02		verb	3rd sg. pres. opt.	1	VI
i	n	root		liblejtom	91.04		noun	dat. pl. masc.	1	VI
i	n	root		ciŋ	91.06		noun	acc. pl. fem.	1	VI
i	n	root	ke	chriffe	91.10		verb	3rd sg. pres. opt.	1	VI
i	n	root		suukilii	92.05		noun	nom. sg. fem.	3	VI
i	n	root		si	92.15		verb	3rd sg. pres. opt.	3	VI
i	n	root		uuihan*	93.02		adj.	acc. sg. fem.	3	VI
i	n	root		imbizze	93.09		noun	dat. sg. masc./neut.	3	VI

i	n	root		si		93.14		verb	3rd sg. pres. opt.	3	VI
i	n	root	in	bizzan		93.14		part. pret.		3	VI
i	n	root		si		93.18		verb	3rd sg. pres. opt.	3	VI
i	n	root		si		94.02		verb	3rd sg. pres. opt.	3	VI
i	n	root		imbiz		94.02		noun	nom. sg. masc./neut.	3	VI
i	n	root		si		94.05		verb	3rd sg. pres. opt.	3	VI
i	n	root	untar	slihche		94.11		verb	3rd sg. pres. opt.	3	VI
i	n	root		sin		94.15		verb	3rd pl. pres. opt.	3	VI
i	n	root		si		94.17		verb	3rd sg. pres. opt.	3	VI
i	n	root		libanti		95.01		noun	dat. sg. fem.	3	VII
i	n	root		si		95.03		verb	3rd sg. pres. opt.	3	VII
i	n	root		libleit		95.09		noun	gen. sg. fem.	3	VII
i	n	root		si		95.10		verb	3rd sg. pres. opt.	3	VII
i	n	root	untar	slihhanera		96.02		part. pret.	dat. sg. fem.	1	VII
i	n	root		citjm		96.05		noun	dat. pl. fem.	1	VII
i	n	root		sin		96.18		verb	3rd pl. pres. opt.	1	VII
i	n	root		uuiheru		97.02		adj.	dat. sg. fem.	1	VII
i	n	root	jm	bizzen		97.03		verb	3rd pl. pres. opt.	1	VII
i	n	root		sin		97.16		verb	3rd pl. pres. opt.	1	VII
i	n	root		si		98.05		verb	3rd sg. pres. opt.	1	VII
i	n	root	im	bizzante		98.07		part. pres.	nom. pl. masc.	1	VII
i	n	root		sin		98.08		verb	3rd pl. pres. opt.	1	VII
i	n	root		si		98.10		verb	3rd sg. pres. opt.	1	VII
i	n	root		inbizzes		98.10		noun	gen. sg. masc./neut.	1	VII
i	n	root		sin		98.11		verb	3rd pl. pres. opt.	1	VII

i	n	root		citj	98.13		noun	gen. sg. fem.	1	VII
i	n	root		citjt	98.15	*	noun	dat. pl. fem.	1	VII
i	n	root		citj	98.15		noun	gen. sg. fem.	1	VII
i	n	root		cit	98.17		noun	nom. sg. fem.	1	VII
i	n	root		citj	99.06		noun	gen. sg. fem.	1	VII
i	n	root		cit	99.12		noun	nom. sg. fem.	1	VII
i	n	root		sin	99.17		verb	3rd pl. pres. opt.	1	VII
i	n	root		suuikalii	100.04		noun	gen. sg. fem.	1	VII
i	n	root		si	100.10		verb	3rd sg. pres. opt.	1	VII
i	n	root		citj	100.13		noun	gen. sg. fem.	1	VII
i	n	root		ilungu	100.16		noun	dat. sg. fem.	1	VII
i	n	root		si	101.01		verb	3rd sg. pres. opt.	1	VII
i	n	root		sineru	101.07		poss. pron.	dat. sg. fem.	1	VII
i	n	root		si	101.10		verb	3rd sg. pres. opt.	1	VII
i	n	root		citjm	102.06		noun	dat. pl. fem.	1	VII
i	n	root		sinera	102.13		poss. pron.	dat. sg. fem.	1	VII
i	n	root		si	103.01		verb	3rd sg. pres. opt.	1	VII
i	n	root		si	103.02		verb	3rd sg. pres. opt.	1	VII
i	n	root		si	103.08		verb	3rd sg. pres. opt.	1	VII
i	n	root		citj	103.15		noun	gen. sg. fem.	1	VII
i	n	root		si	104.10		verb	3rd sg. pres. opt.	3	VII
i	n	root		sinan	106.02	*	poss. pron.	acc. sg. masc.	3	VII
i	n	root	uzke	lite	106.03	*	verb	3rd sg. pres. opt.	3	VII
i	n	root		sin	106.07		verb	3rd pl. pres. opt.	3	VII
i	n	root	uzke	lilit	106.15		verb	3rd sg. pres. ind.	3	VII

i	n	root		midanti	107.04		part. pres.		3	VII
i	n	root		cit	107.09		noun	nom. sg. fem.	3	VII
i	n	root		citi	107.13	*	noun	dat. pl. fem.	3	VII
i	n	root		sin	107.14		verb	3rd pl. pres. opt.	3	VII
i	n	root		sin	108.01		verb	3rd pl. pres. opt.	3	VII
i	n	root		fiantin	108.05		noun	nom. sg. fem.	3	VII
i	n	root		citim	108.06		noun	dat. pl. fem.	3	VII
i	n	root		citi	108.10		noun	acc. pl. fem.	3	VII
i	n	root		citi	108.12		noun	gen. sg. fem.	3	VII
i	n	root		si	109.02		verb	3rd sg. pres. opt.	3	VII
i	n	root		citljhhor	109.02		adv.	comparative	3	VII
i	n	root		citi	109.03		noun	gen. sg. fem.	3	VII
i	n	root		sin	109.04		verb	3rd pl. pres. opt.	3	VII
i	n	root		sin	109.07		verb	3rd pl. pres. opt.	3	VII
i	n	root		sin	109.07		verb	3rd pl. pres. opt.	3	VII
i	n	root		sin	109.12		verb	3rd pl. pres. opt.	3	VII
i	n	root		citi	109.14		noun	gen. sg. fem.	3	VII
i	n	root		citi	109.15		noun	gen. sg. fem.	3	VII
i	n	root		si	109.16		verb	3rd sg. pres. opt.	3	VII
i	n	root		citi	110.01		noun	gen. sg. fem.	3	VII
i	n	root		sin	110.02		verb	3rd pl. pres. opt.	3	VII
i	n	root		ilungu	110.05		noun	dat. sg. fem.	3	VII
i	n	root		si	110.06		verb	3rd sg. pres. opt.	3	VII
i	n	root		imbizze	110.06		noun	dat. sg. masc./neut.	3	VII
i	n	root		sin	110.17		verb	3rd pl. pres. opt.	3	VII



i	n	root		ciŋim	111.01	noun	dat. pl. fem.	3	VIII
i	n	root		si	111.03	verb	3rd sg. pres. opt.	3	VIII
i	n	root		si	111.07	verb	3rd sg. pres. opt.	3	VIII
i	n	root		ciŋim	111.12	noun	dat. pl. fem.	3	VIII
i	n	root		si	111.17	verb	3rd sg. pres. opt.	3	VIII
i	n	root		sin	112.03	verb	3rd pl. pres. opt.	3	VIII
i	n	root		citi	112.08	noun	gen. sg. fem.	3	VIII
i	n	root		lib	112.08	noun	nom. sg. masc.	3	VIII
i	n	root		lip	112.13	noun	acc. sg. masc.	3	VIII
i	n	root		sin	112.16	verb	3rd pl. pres. opt.	3	VIII
i	n	root	ki	rjŋche*	113.06	verb	3rd sg. pres. opt.	3	VIII
i	n	root		lihhamin	113.09	noun	dat. sg. masc.	3	VIII
i	n	root		<b>sinemv</b>	113.09	poss. pron.	dat. sg. masc.	3	VIII
i	n	root		vvihun	113.12	adj.	gen. sg. fem.	3	VIII
i	n	root		pite	113.13	verb	3rd sg. pres. opt.	3	VIII
i	n	root		si	113.15	verb	3rd sg. pres. opt.	3	VIII
i	n	root		sinv	113.15	poss. pron.	instr. sg. masc.	3	VIII
i	n	root		ital	113.18	adj.	nom. sg. masc.	3	VIII
i	n	root		sin	118.07	verb	3rd pl. pres. opt.	3	VIII
i	n	root		si	118.10	verb	3rd sg. pres. opt.	3	VIII
i	n	root	far	lihan	118.13	verb	infinitive	3	VIII
i	n	root		si	119.02	verb	3rd sg. pres. opt.	3	VIII
i	n	root		si	119.03	verb	3rd sg. pres. opt.	3	VIII
i	n	root		si	119.04	verb	3rd sg. pres. opt.	3	VIII
i	n	root		uuihi	119.07	noun	dat. sg. fem.	3	VIII

i	n	root		si		120.05		verb		3rd sg. pres. opt.	3	VIII
i	n	root		sin		121.05		verb		3rd pl. pres. opt.	3	VIII
i	n	root	aba	snidan		121.18		verb		infinitive	3	VIII
i	n	root		si		123.01		verb		3rd sg. pres. opt.	3	VIII
i	n	root	far	snitan		123.01		part. pret.			3	VIII
i	n	root		si		123.06		verb		3rd sg. pres. opt.	3	VIII
i	n	root		si		123.07		verb		3rd sg. pres. opt.	3	VIII
i	n	root		sin		123.18		pers. pron.		gen. sg. masc.	3	VIII
i	n	root	ka	uuisan		123.18		verb		infinitive	3	VIII
i	n	root		sinerv		124.08		poss. pron.		gen. sg. fem.	3	VIII
i	n	root		si		124.10		verb		3rd sg. pres. opt.	3	VIII
i	n	root		sin		124.16		verb		3rd pl. pres. opt.	3	VIII
i	n	root		lihhamin		124.18		noun		dat. sg. masc.	3	VIII
i	n	root		sin		125.03		verb		3rd pl. pres. opt.	3	VIII
i	n	root	vntar	slihe		125.04		verb		3rd sg. pres. opt.	3	VIII
i	n	root		si		125.07		verb		3rd sg. pres. opt.	3	VIII
i	n	root		libe		125.09		noun		dat. sg. masc.	3	VIII
i	n	root		si		125.10		verb		3rd sg. pres. opt.	3	VIII
i	n	root		sinera		125.18		poss. pron.		dat. sg. fem.	3	VIII
i	n	root		si		126.04		verb		3rd sg. pres. opt.	3	VIII
i	n	root		sineru		126.12		poss. pron.		gen. sg. fem.	3	VIII
i	n	root		si		126.14		verb		3rd sg. pres. opt.	3	VIII
i	n	root	ka	lid		126.17		verb		2nd sg. pres. imp.	3	VIII
i	n	root		frier		126.17		adj.		nom. sg. masc.	3	VIII
i	n	root		si		127.02		verb		3rd sg. pres. opt.	3	IX

i	n	root		si	127.04		verb	3rd sg. pres. opt.	3	IX
i	n	root		frjhalse	127.16		noun	dat. sg. masc.	3	IX
i	n	root		libe	128.02		noun	dat. sg. masc.	3	IX
i	n	root		vvihem	128.04		adj.	dat. pl.	3	IX
i	n	root		vvihero	128.08		adj.	gen. pl.	3	IX
i	n	root		vvihida	128.08		noun	nom. pl. fem.	3	IX
i	n	root		si	129.06		verb	3rd sg. pres. opt.	3	IX
i	n	root		lihhamin	129.12		noun	gen. sg. masc.	3	IX
i	n	root		si	129.13		verb	3rd sg. pres. opt.	3	IX
i	n	root		si	129.15		verb	3rd sg. pres. opt.	3	IX
i	n	root		sin	129.17		verb	3rd pl. pres. opt.	3	IX
i	n	root		si	130.07		verb	3rd sg. pres. opt.	3	IX
i	n	root		sinas	130.11		poss. pron.	acc. sg. neut.	3	IX
i	n	root		sin	131.13		verb	3rd pl. pres. opt.	3	IX
i	n	root		si	132.11		verb	3rd sg. pres. opt.	3	IX
i	n	root		si	132.13		verb	3rd sg. pres. opt.	3	IX
i	n	root		vvihan	132.14		verb	infinitive	3	IX
i	n	root		sin	133.09		verb	3rd pl. pres. opt.	3	IX
i	n	root		si	134.03		verb	3rd sg. pres. opt.	3	IX
i	n	root		citi	134.04		noun	gen. sg. fem.	3	IX
i	n	root		si	134.10		verb	3rd sg. pres. opt.	3	IX
i	n	root		lihhamin	134.16		noun	dat. sg. masc.	3	IX
i	n	root	ka	lide	134.17		verb	3rd sg. pres. opt.	3	IX
i	n	root		siniv	134.18		poss. pron.	nom. sg. fem.	3	IX
i	n	root		sin	135.01		verb	3rd pl. pres. opt.	3	IX

i	n	root		si		135.02		verb		3rd sg. pres. opt.	3	IX
i	n	root		si		135.04		verb		3rd sg. pres. opt.	3	IX
i	n	root		sin		135.06		verb		3rd pl. pres. opt.	3	IX
i	y	root	foraki	siit		135.08		verb		3rd sg. pres. ind.	3	IX
i	n	root		sin		135.14		verb		3rd pl. pres. opt.	3	IX
i	y	root	foraki	siit		135.15		verb		3rd sg. pres. ind.	3	IX
i	n	root		lib		135.15		noun		acc. sg. masc.	3	IX
i	n	root		<b>sinem</b>		136.07		poss. pron.		dat. pl. (masc.)	3	IX
i	n	root		si		136.08		verb		3rd sg. pres. opt.	3	IX
i	n	root	fram	dihe		136.18		verb		3rd sg. pres. opt.	3	IX
i	n	root		libes		137.05		noun		gen. sg. masc.	3	IX
i	n	root		si		137.10		verb		3rd sg. pres. opt.	3	IX
i	n	root		si		137.11		verb		3rd sg. pres. opt.	3	IX
i	n	root		skinentem		137.13		part. pres.		dat. pl. fem.	3	IX
i	n	root		si		137.14		verb		3rd sg. pres. opt.	3	IX
i	n	root		ljbes		138.02		noun		gen. sg. masc.	1	IX
i	n	root		cit		138.02		noun		nom. sg. fem.	1	IX
i	n	root		friljhha		138.05		adj.		acc. sg. fem.	1	IX
i	n	root		sin		139.03		verb		3rd pl. pres. ind.	1	IX
i	n	root		citj		139.05		noun		gen. sg. fem.	1	IX
i	n	root		citj		139.07		noun		gen. sg. fem.	1	IX
i	n	root		si		140.02		verb		3rd sg. pres. opt.	1	IX
i	n	root		sinera		140.03		poss. pron.		dat. sg. fem.	1	IX
i	n	root		vvihii		140.07		noun		acc. sg. fem.	1	IX
i	n	root		siner		140.11		poss. pron.		nom. sg. masc.	1	IX

i	n	root		si	140.12		verb	3rd sg. pres. opt.	1	IX
i	n	root		si	141.03		verb	3rd sg. pres. opt.	1	IX
i	n	root		si	141.04		verb	3rd sg. pres. opt.	1	IX
i	n	root		ljbes	141.08		noun	gen. sg. masc.	1	IX
i	n	root		si	141.09		verb	3rd sg. pres. opt.	1	IX
i	n	root		sinem	141.13		poss. pron.	dat. pl. fem.	1	IX
i	n	root		skinit	142.01		verb	3rd sg. pres. ind.	1	IX
i	n	root		sines	142.09		poss. pron.	gen. sg. neut.	1	IX
i	n	root	ke	risit	142.12		verb	3rd sg. pres. ind.	1	IX
i	n	root		si	143.03		verb	3rd sg. pres. opt.	1	X
i	n	root		sina	143.04		poss. pron.	acc. sg. fem.	1	X
i	n	root	aba	snide	143.09		verb	3rd sg. pres. opt.	1	X
i	n	root		miniv	144.02		poss. pron.	acc. pl. neut.	1	X
i	n	root		rihhidom	145.04		noun	dat. pl. fem.	1	X
i	n	root		rjchisod	145.05		noun	nom. sg. neut.	1	X
i	n	root		fiantskeffi	146.04		noun	nom. pl. fem.	1	X
i	n	root		si	148.03		verb	3rd sg. pres. opt.	1	X
i	n	root		si	148.05		verb	3rd sg. pres. opt.	1	X
i	n	root		si	148.07		verb	3rd sg. pres. opt.	1	X
i	n	root		si	148.09		verb	3rd sg. pres. opt.	1	X
i	y	root		riiffi	148.18		noun	nom. sg. fem.	1	X
i	n	root		illantihho	149.09		adv.		1	X
i	n	root		sin	149.15		verb	3rd pl. pres. opt.	1	X
o	n	root		horsamii	8.03		noun	gen. sg. fem.	1	I
o	n	root		tode	9.14		noun	dat. sg. masc.	1	I

o	n	root	ke	pot	10.07		verb		3rd. sg. pret. ind.	1	I
o	n	root	framer	hlot	10.10		verb		3rd sg. pret. ind.	1	I
o	y	root		loon	10.11		noun		nom. sg. neut.	1	I
o	y	root		oora	10.15		noun		acc. sg. neut.	1	I
o	n	root		horsamii	10.18		noun		gen. sg. fem.	1	I
o	n	root	un	horsamii	11.01		adj.		gen. sg. fem.	1	I
o	n	root		horsamii	11.06		noun		gen. sg. fem.	1	I
o	n	root		horrames	12.10		verb		1st pl. pres. opt.	1	I
o	y	root		oorom	12.10		noun		dat. pl. neut.	1	I
o	y	root		hoorreet	12.13		verb		2nd pl. pres. ind.	1	I
o	y	root		hoorre	12.15		verb		3rd sg. pres. opt.	1	I
o	y	root		oorun	12.15		noun		acc. pl. neut.	1	I
o	n	root		horendo	12.15	*	adv.			1	I
o	y	root		hoorrat	12.17		verb		2nd pl. pres. imp.	1	I
o	n	root		todes	13.01		noun		gen. sg. masc.	1	I
o	y	root		hoorres	13.07		verb		2nd sg. pres. opt.	1	I
o	y	root		ooron	13.14		noun		nom. pl. neut.	1	I
o	y	root		hoorremees	14.15		verb		1st pl. pres. imp.	1	I
o	n	root		soso	15.16		adv.			1	II
o	y	root		hoorrit	16.04		verb		3rd sg. pres. ind.	1	II
o	n	root		tod	16.18		noun		acc. sg. masc.	1	II
o	n	root	ke	hortomees	17.03		verb		1st pl. pret. ind.	1	II
o	n	root		soso	18.09		adv.			1	II
o	n	root		zo	18.17	*	adv.			1	II
o	n	root		horsamii	20.11		noun		gen. sg. fem.	1	II

o	n	root		so		20.15		adv.			1		II
o	n	root		so		20.15		adv.			1		II
o	n	root		so		20.17		adv.			1		II
o	n	root	vn	horsamontj		20.18	*	part. pres.			1		II
o	n	root	vn	horsamen		21.09	*	adj.		dat. pl. neut.	1		II
o	n	root		tod		21.10		noun		nom. sg. masc.	1		II
o	n	root		horsamii		22.15		noun		dat. sg. fem.	1		II
o	n	root		so		22.18		adv.			1		II
o	n	root		so		23.01		adv.			1		II
o	n	root		horsamem		24.06		adj.		dat. pl. masc.	1		II
o	n	root		so		24.09		adv.			1		II
o	n	root		so		24.11		adv.			1		II
o	n	root		so		24.12		adv.			1		II
o	n	root	vn	horsame		25.03		adj.		acc. pl. masc.	1		II
o	y	root	er	loosis		25.07		verb		2nd sg. pres. ind.	1		II
o	n	root		tode		25.08		noun		dat. sg. masc.	1		II
o	n	root		so		25.18		adv.			1		II
o	n	root		odhuuila		26.12		adv.			1		II
o	n	root		so		27.01		adv.			1		II
o	n	root		so		27.01		adv.			1		II
o	n	root		so		27.06		adv.			1		II
o	n	root		so		27.14		adv.			1		II
o	n	root		so		27.14		adv.			1		II
o	y	root		hoorrentj		27.17		part. pres.			1		II
o	n	root		so		28.04		adv.			1		II

o	n	root		so	28.08		adv.			1		II
o	y	root		hoorreen	28.10		verb		3rd pl. pres. opt.	1		II
o	n	root		so	28.10		adv.			1		II
o	y	root		hoorreen	28.11		verb		infinitive	1		II
o	n	root		so	28.12		adv.			1		II
o	n	root		so	29.10		adv.			1		II
o	n	root		so	29.11		adv.			1		II
o	n	root		soso	29.17		adv.			1		II
o	n	root		totan	30.09		adj.		acc. sg. masc.	1		II
o	n	root	ke	trostan	30.11		verb		infinitive	1		II
o	n	root		odhuuila	30.17		adv.			1		II
o	n	root		tod	31.16		noun		acc. sg. masc.	1		III
o	n	root		horran	32.09		verb		infinitive	1		III
o	n	root		horran	32.16		verb		infinitive	1		III
o	n	root		sosama	32.17		adv.			1		III
o	y	root		loot*	33.17	*	noun		nom. sg. neut.	1		III
o	y	root		hoorta	34.02		verb		3rd sg. pret. ind.	1		III
o	y	root		oora	34.02		noun		nom. sg. neut.	1		III
o	n	root		horsamii	34.08		noun		dat. sg. fem.	1		III
o	y	root		hoorsamii	34.10		noun		nom. sg. fem.	1		III
o	n	root		so	34.15		adv.			1		III
o	y	root	kagan	hoorta	35.01		verb		3rd sg. pret. ind.	1		III
o	y	root		oorjn	35.01		noun		gen. sg. neut.	1		III
o	n	root		horit	35.03		verb		3rd sg. pres. ind.	1		III
o	n	root		horjt	35.03		verb		3rd sg. pres. ind.	1		III



o	y	root		hoorsamii	35.08		noun	gen. sg. fem.	1	III
o	n	root		sosama	35.10		adv.		1	III
o	y	root		hoorsamonte	36.02		part. pres.	nom. pl. masc.	1	III
o	y	root		hoorsamii	36.08		noun	nom. sg. fem.	1	III
o	y	root		hoorsamii	36.12		noun	nom. sg. fem.	1	III
o	y	root		hoorit	36.14		verb	3rd sg. pres. ind.	1	III
o	y	root		hoorit	36.15		verb	3rd sg. pres. ind.	1	III
o	y	root		hoorit	36.18		verb	3rd sg. pres. ind.	1	III
o	n	root		sosama	37.01		adv.		1	III
o	n	root		tod	38.05		noun	nom. sg. masc.	1	III
o	n	root		horran	38.08		verb	infinitive	1	III
o	n	root		soso	39.10		adv.		1	III
o	n	root		so	39.11		adv.		1	III
o	y	root	ki	poot	41.01		verb	3rd. sg. pret. ind.	1	III
o	n	root		so	42.05		adv.		1	III
o	n	root		so	42.10		adv.		1	III
o	n	root		so	43.02		adv.		1	III
o	n	root		so	43.06		adv.		1	III
o	n	root		tod	43.11		noun	nom. sg. masc.	1	III
o	n	root		so	44.04		adv.		1	III
o	n	root		notduruft	45.01		noun	nom. sg. fem.	1	III
o	n	root		so	45.04		adv.		1	III
o	y	root		hoorsamii	45.05		noun	dat. sg. fem.	1	III
o	n	root		tode	45.07		noun	dat. sg. masc.	1	III
o	n	root		horsamoontj	45.07		part. pres.		1	III

o	y	root		hoorsamii	45.09		noun		dat. sg. fem.	1	III
o	n	root		so	45.10		adv.			1	III
o	n	root		sosama	45.10		adv.			1	III
o	n	root		sosama	45.18		adv.			1	III
o	n	root		tode	46.02		noun		dat. sg. masc.	1	III
o	n	root		so	46.04		adv.			1	III
o	n	root		so	46.08		adv.			1	III
o	n	root		soso	46.10		adv.			1	III
o	n	root		so	46.13		adv.			1	III
o	y	root	ke	nootanteru	47.02		part. pres.		dat. sg. fem.	1	IV
o	n	root		noz	48.08		noun		nom. sg. neut.	2	IV
o	n	root		so	48.08		adv.			2	IV
o	n	root		sosama	48.13		adv.			2	IV
o	n	root		foiv	50.03		adj.		acc. pl. neut.	2	IV
o	n	root		so	50.05		adv.			2	IV
o	n	root		foem	50.06		adj.		dat. pl. neut.	2	IV
o	n	root		sosama	50.09		adv.			2	IV
o	n	root		so	50.13		adv.			2	IV
o	n	root		so	50.13		adv.			2	IV
o	n	root		so	52.04		adv.			3	IV
o	n	root		sosama	52.06		adv.			3	IV
o	n	root		so	52.11		adv.			3	IV
o	n	root		notdurfti	52.14		noun		dat. sg. fem.	3	IV
o	n	root		so	54.05		adv.			3	IV
o	n	root		sosama	54.06		adv.			3	IV

o	n	root		sosama	54.06		adv.			3	IV
o	n	root		so	54.16		adv.			3	IV
o	n	root		so	55.02		adv.			3	IV
o	n	root		so	55.10		adv.			3	IV
o	n	root		so	56.01		adv.			3	IV
o	n	root		so	56.04		adv.			3	IV
o	n	root		soso	56.11		adv.			3	IV
o	n	root		so	57.05		adv.			3	IV
o	n	root		odouuila	57.11		adv.			3	IV
o	n	root		so	58.14		adv.			3	IV
o	n	root		soso	58.16		adv.			3	IV
o	n	root		soso	59.09		adv.			3	IV
o	n	root	ke	horrantem	60.01		part. pres.		dat. pl. masc.	3	IV
o	n	root		soso	60.05		adv.			3	IV
o	n	root		losi	60.09		verb		2nd sg.pres. imp.	3	IV
o	n	root		soso	60.11		adv.			3	IV
o	n	root		so	60.12		adv.			3	IV
o	n	root		sosama	61.02		adv.			3	IV
o	n	root		sosama	61.02		adv.			3	IV
o	n	root		so	61.14		adv.			3	IV
o	n	root		so	65.05		adv.			3	V
o	n	root		so	65.08		adv.			3	V
o	n	root		so	65.11		adv.			3	V
o	n	root		so	66.10		adv.			3	V
o	n	root		oduuila	68.04		adv.			3	V

o	n	root		so	68.18		adv.			3		V
o	n	root		unhorsamer	73.04		adj.		nom. sg. masc.	3		V
o	n	root	ki	nozseeffi	74.07		noun		dat. sg. fem.	3		V
o	n	root		so	76.01		adv.			3		V
o	n	root		so	78.01		adv.			3		V
o	n	root		so	78.03		adv.			3		V
o	n	root		so	78.07		adv.			3		V
o	n	root		so	78.07		adv.			3		V
o	n	root		so	80.01		adv.			1		VI
o	n	root		soso	81.06		adv.			1		VI
o	n	root		odhuuila	81.10		adv.			1		VI
o	n	root		so	82.05		adv.			1		VI
o	n	root		so	82.14		adv.			1		VI
o	n	root		so	83.15		adv.			1		VI
o	n	root		so	83.16		adv.			1		VI
o	n	root		notdurufti	85.01		noun		dat. sg. fem.	3		VI
o	n	root		soso	85.15		adv.			3		VI
o	n	root		so	86.08		adv.			3		VI
o	n	root		so	86.08		adv.			3		VI
o	n	root		so	86.09		adv.			3		VI
o	n	root		so	86.09		adv.			3		VI
o	y	root		loon	86.17		noun		nom. sg. neut.	3		VI
o	n	root	ke	trostanter	88.15		part. pres.		nom. sg. masc.	1		VI
o	y	root		loon	89.16		noun		nom. sg. neut.	1		VI
o	n	root		so	90.14		adv.			1		VI

o	n	root		so	90.14		adv.			1	VI
o	n	root		odhuuila	91.09		adv.			1	VI
o	n	root		notdurufti	92.07		noun		acc. pl. fem.	3	VI
o	n	root		so	92.12		adv.			3	VI
o	n	root		protes	94.01		noun		gen. sg. neut.	3	VI
o	n	root		soso	94.13		adv.			3	VI
o	n	root		so	95.07		adv.			3	VII
o	n	root		so	95.07		adv.			3	VII
o	n	root		lon	95.15		noun		acc. sg. neut.	3	VII
o	n	root		notduruft	95.16		noun		nom. sg. fem.	3	VII
o	n	root		sosama	96.10		adv.			1	VII
o	y	root		oostrun	97.02		noun		dat. sg. fem.	1	VII
o	n	root		so	98.05		adv.			1	VII
o	n	root		so	98.10		adv.			1	VII
o	n	root		horrente	99.03		part. pres.		acc. pl. masc.	1	VII
o	n	root		so	99.11		adv.			1	VII
o	n	root		so	99.12		adv.			1	VII
o	n	root		so	99.12		adv.			1	VII
o	n	root		notduruft	100.06		noun		nom. sg. fem.	1	VII
o	n	root		so	100.13		adv.			1	VII
o	n	root	ki	hortaz	100.14		part. pres.		nom. sg. neut.	1	VII
o	n	root	ki	nozskaffi	103.04		noun		dat. sg. fem.	1	VII
o	n	root		sosama	103.08		adv.			1	VII
o	n	root		so	104.08		adv.			3	VII
o	n	root		so	104.11		adv.			3	VII

o	n	root		so	105.06		adv.		3	VII
o	n	root		so	105.12		adv.		3	VII
o	n	root		so	106.09		adv.		3	VII
o	n	root		so	106.09		adv.		3	VII
o	n	root		so	107.04		adv.		3	VII
o	n	root		so	107.11		adv.		3	VII
o	n	root		sosama	108.15		adv.		3	VII
o	n	root		oduula	108.18		adv.		3	VII
o	n	root		so	110.04		adv.		3	VII
o	n	root	ke	horjt	110.04		part. pret.		3	VII
o	n	root		so	110.05		adv.		3	VII
o	n	root		so	110.05		adv.		3	VII
o	n	root		soso	111.07		adv.		3	VIII
o	n	root		foero	112.10		adj.	gen. sg. masc.	3	VIII
o	n	root		ostrun	113.13		noun	gen. sg. fem.	3	VIII
o	n	root		lon	114.01		noun	nom. sg. neut.	3	VIII
o	n	root		otakero	117.17		adj.	gen. pl. masc.	3	VIII
o	n	root		horsamoen	118.14		verb	3rd pl. pres. opt.	3	VIII
o	n	root		sosama	118.15		adv.		3	VIII
o	n	root		so	119.06		adv.		3	VIII
o	n	root		so	119.14		adv.		3	VIII
o	n	root		so	119.14		adv.		3	VIII
o	n	root		so	122.01		adv.		3	VIII
o	n	root		so	122.17		adv.		3	VIII
o	n	root		notduruft	123.02		noun	nom. sg. fem.	3	VIII

o	n	root		soso	123.10		adv.			3	VIII
o	n	root		so	123.16		adv.			3	VIII
o	n	root		so	123.16		adv.			3	VIII
o	n	root		notduruft	125.02		noun		acc. pl. fem.	3	VIII
o	n	root		fouuem	126.01	*	adj.		dat. pl. masc.	3	VIII
o	n	root		horsami	126.09		noun		dat. sg. fem.	3	VIII
o	n	root		so	127.16		adv.			3	IX
o	n	root		horsami	128.03		noun		dat. sg. fem.	3	IX
o	n	root		so	131.03		adv.			3	IX
o	n	root		lone	131.09		noun		dat. sg. neut.	3	IX
o	n	root		sosama	131.17		adv.			3	IX
o	n	root		so	134.10		adv.			3	IX
o	n	root		sosama	134.17		adv.			3	IX
o	n	root		horsamii	136.15		noun		gen. sg. fem.	3	IX
o	n	root		horren	137.16		verb		infinitive	3	IX
o	n	root		so	137.16		adv.			3	IX
o	n	root		so	138.03		adv.			1	IX
o	n	root		sosama	138.05		adv.			1	IX
o	n	root		so	139.03		adv.			1	IX
o	n	root		so	139.04		adv.			1	IX
o	n	root		so	139.08		adv.			1	IX
o	n	root		so	139.08		adv.			1	IX
o	n	root		so	140.06		adv.			1	IX
o	n	root		so	140.06		adv.			1	IX
o	n	root		soso	142.06		adv.			1	IX

o	n	root		prodii	143.04	noun	acc. sg. fem.	1	X
o	n	root		rorriun	143.05	noun	acc. sg. fem.	1	X
o	n	root		horre	144.11	verb	3rd sg. pres. opt.	1	X
o	n	root		so	147.06	adv.		1	X
o	n	root		so	147.13	adv.		1	X
o	n	root		so	147.13	adv.		1	X
u	n	root		uzzan	9.02	conj.		1	I
u	n	root		uzzan	9.08	conj.		1	I
u	n	root		uzzan	12.01	conj.		1	I
u	y	root	zua	luustrenteeem	12.09	adj.	dat. pl. neut.	1	I
u	n	root		du	13.07	pers. pron.	nom. sg.	1	I
u	n	root		tweet	13.14	verb	2nd pl. pres. opt.	1	I
u	n	root		huse	14.09	noun	dat. sg. neut.	1	I
u	n	root		puan	14.09	verb	infinitive	1	I
u	n	root		uzzan	14.10	conj.		1	I
u	n	root		uzzan	14.11	conj.		1	I
u	n	root		puut	14.13	verb	3rd sg. pres. ind.	1	I
u	n	root		huses	14.17	noun	gen. sg. neut.	1	I
u	n	root		uzzan	15.11	conj.		1	II
u	n	root		uzzan	15.12	conj.		1	II
u	n	root		vzzan	15.15	conj.		1	II
u	n	root		hus	16.06	noun	acc. sg. neut.	1	II
u	n	root		hus	16.08	noun	acc. sg. neut.	1	II
u	n	root		uzzan	16.18	conj.		1	II
u	n	root		puarre	17.03	noun	dat. sg. masc.	1	II



u	n	root		huses	17.03		noun	gen. sg. neut.	1	II
u	n	root		puentjn	17.04		part. pres.	gen. sg. masc.	1	II
u	n	root		uzzan	17.04		conj.		1	II
u	n	root		puentin	17.05		part. pres.	gen. sg. masc.	1	II
u	n	root		vzzan	17.15		conj.		1	II
u	n	root		uzzan	18.10		conj.		1	II
u	n	root		vzzan	18.15		conj.		1	II
u	n	root		uzzana	20.05		adv.		1	II
u	n	root		uzzan	20.07		conj.		1	II
u	n	root		du	22.07		pers. pron.	nom. sg.	1	II
u	n	root		du	22.10		pers. pron.	nom. sg.	1	II
u	n	root		uzzan	22.14		conj.		1	II
u	n	root		vzzan	22.17		conj.		1	II
u	n	root	ke	duht	23.01		part. pret.		1	II
u	n	root		uzzan	24.11		conj.		1	II
u	n	root		tue	26.07		verb	3rd sg. pres. opt.	1	II
u	n	root		vzzan	26.08		conj.		1	II
u	n	root		tue	28.01		verb	3rd sg. pres. opt.	1	II
u	n	root	ke	duht	28.07		part. pret.		1	II
u	n	root		uzzan	28.10		conj.		1	II
u	n	root		uzzaan	29.01		prep.		1	II
u	n	root		tue	29.05		verb	3rd sg. pres. opt.	1	II
u	n	root		pruhhe	29.10		verb	3rd sg. pres. opt.	1	II
u	n	root		tue	30.05		verb	3rd sg. pres. opt.	1	II
u	n	root		uzzan	31.02		conj.		1	III

u	n	root		vzzan	31.04		conj.		1	III
u	n	root		tue	32.17		verb	3rd sg. pres. opt.	1	III
u	n	root		uzzan	33.03		conj.		1	III
u	n	root		vzan	36.02		conj.		1	III
u	n	root		uzzan	36.06		conj.		1	III
u	n	root		vzzan	36.07		conj.		1	III
u	n	root		uzzan	37.01		conj.		1	III
u	n	root	ke	duht	38.10		part. pret.		1	III
u	n	root	int	luhhan	38.15		verb	infinitive	1	III
u	n	root		vzzan	39.09		conj.		1	III
u	n	root		vfstic	40.04		noun	nom. sg. masc.	1	III
u	n	root		uzzan	40.05		conj.		1	III
u	n	root		uzzan	41.09		conj.		1	III
u	n	root		rumana	42.03		adv.		1	III
u	n	root	ke	duht	42.17		part. pret.		1	III
u	n	root	pi	suuffit	43.02		verb	3rd sg. pres. ind.	1	III
u	n	root		uzzan	44.15		conj.		1	III
u	n	root		uzzan	44.17		conj.		1	III
u	n	root		vzzan	46.06		conj.		1	III
u	n	root		du	47.18		pers. pron.	nom. sg.	1	IV
u	n	root		uzorosti	48.03		noun	dat. sg. fem.	2	IV
u	n	root		uzzan	48.12		conj.		2	IV
u	n	root		tue	49.03		verb	3rd sg. pres. opt.	2	IV
u	n	root		uzzan	49.03		conj.		2	IV
u	n	root		hlutreister	50.04		adj.	nom. sg. masc.	2	IV

u	n	root		uzzan	50.09	conj.			2	IV
u	n	root		uzzan	51.13	conj.			2	IV
u	n	root		uzzan	55.04	conj.			3	IV
u	n	root		uzzan	55.06	conj.			3	IV
u	n	root		uzzan	55.13	conj.			3	IV
u	n	root		uzzan	57.11	conj.			3	IV
u	n	root		du	57.14	pers. pron.		nom. sg.	3	IV
u	n	root		tue	57.16	verb		3rd sg. pres. opt.	3	IV
u	n	root		rumiskiu	59.10	adj.		nom. sg. fem.	3	IV
u	n	root		uzan	59.17	conj.			3	IV
u	n	root		uzzan	60.09	conj.			3	IV
u	n	root		uzan	60.13	conj.			3	IV
u	n	root		uzana	61.07	adv.			3	IV
u	n	root		du	61.15	pers. pron.		nom. sg.	3	IV
u	n	root		uzzan	66.15	conj.			3	V
u	n	root		tue	68.06	verb		3rd sg. pres. opt.	3	V
u	n	root		luttrj	70.04	noun		gen. sg. fem.	3	V
u	n	root		luttras	70.09	adj.		nom. sg. masc.	3	V
u	n	root		pruhchan	76.11	verb		infinitive	3	V
u	n	root		pruhhanti	79.09	part. pres.			1	VI
u	n	root		chvskeer	81.02	adj.		nom. sg. masc.	1	VI
u	n	root		uzzan	81.04	conj.			1	VI
u	n	root		tue	81.06	verb		3rd sg. pres. opt.	1	VI
u	n	root		tue	81.08	verb		3rd sg. pres. opt.	1	VI
u	n	root		uzzan	81.12	conj.			1	VI

u	n	root		tue		82.01		verb		3rd sg. pres. opt.	1	VI
u	n	root	far	suummando		82.06		part. pres.			1	VI
u	n	root		vzzan		82.08		conj.			1	VI
u	n	root		tue		82.09		verb		3rd sg. pres. opt.	1	VI
u	n	root		huse		83.12		noun		dat. sg. neut.	1	VI
u	n	root		unsubro		84.06		adv.			3	VI
u	n	root		tue		86.01		verb		3rd sg. pres. opt.	3	VI
u	n	root		tue		87.09		verb		3rd sg. pres. opt.	1	VI
u	n	root		du		88.14		pers. pron.		nom. sg.	1	VI
u	n	root		uzzan		96.09		conj.			1	VII
u	n	root		tuen		97.18		verb		3rd pl. pres. opt.	1	VII
u	n	root		vzzan		98.07		conj.			1	VII
u	n	root		uzzan		100.06		conj.			1	VII
u	n	root		vzzan		101.07		conj.			1	VII
u	n	root		uzzana		101.17		adv.			1	VII
u	n	root		uzzana		102.02		adv.			1	VII
u	n	root		vzzan		103.13		conj.			1	VII
u	n	root		uzan		104.08		conj.			3	VII
u	n	root		tue		105.06		verb		3rd sg. pres. opt.	3	VII
u	n	root		uzan		105.17		conj.			3	VII
u	n	root	uz	lite		106.01		noun		dat. sg. masc.	3	VII
u	n	root		uzan		111.13		conj.			3	VIII
u	n	root		tue		111.18		verb		3rd sg. pres. opt.	3	VIII
u	n	root		lutrij		112.13		noun		gen. sg. fem.	3	VIII
u	n	root		unchuschida		112.14		noun		acc. pl. fem.	3	VIII

u	n	root		runstaba	119.14		noun	acc. pl. masc.	3	VIII
u	n	root		pvant	120.12		verb	3rd pl. pres. ind.	3	VIII
u	n	root		rvha	121.01		adj.	acc. sg. fem.	3	VIII
u	n	root		pvant	121.08		verb	3rd pl. pres. ind.	3	VIII
u	n	root	ka	dvht	124.08		part. pret.		3	VIII
u	n	root	ke	dvht	125.16		part. pret.		3	VIII
u	n	root		rumen	133.15	*	adj.	dat. pl. fem.	3	IX
u	n	root		pvanne	135.18		verb	inf. dat.	3	IX
u	n	root	ke	pruhchit	136.09		part. pret.		3	IX
u	n	root		pruhhantj	138.05		part. pres.		1	IX
u	n	root		vzzana	138.17		adv.		1	IX
u	n	root		hlutremv	139.14		adj.	dat. sg. masc.	1	IX
u	n	root		vzzana	140.16		adv.		1	IX
u	n	root	ke	purum	141.18		noun	dat. pl. masc.	1	IX
u	n	root		chuscan	142.15		adj.	acc. sg. masc.	1	IX
u	n	root		tue	143.01		verb	3rd sg. pres. opt.	1	X
u	n	root		tue	147.09		verb	3rd sg. pres. opt.	1	X
u	n	root		vzze	149.17		adv.		1	X

b) Overview of all the words with long vowel in non-root (unaccented) syllable.

V	VV	Acc	Prefix	Word	Page	*	Class	Form	Gender/ Mood	Type	Scr.	Qu.
a	n	unacc		halsa	9.18		noun	acc. pl.	masc.	ā-ending	1	I
a	n	unacc		scalcha	12.03		noun	acc. pl.	masc.	ā-ending	1	I
a	n	unacc		taga	13.06		noun	acc. pl.	masc.	ā-ending	1	I
a	n	unacc		lefsa	13.10		noun	acc. pl.	masc.	ā-ending	1	I
a	n	unacc		sinda	14.06		noun	acc. pl.	masc.	ā-ending	1	I
a	n	unacc		antfrahidu	14.15		noun	dat. sg.	fem.	compound	1	I
a	n	unacc		danan	16.03		adv.			ān-adv.	1	II
a	n	unacc		aha	16.07		noun	nom. pl.	fem.	ā-ending	1	II
a	n	unacc		antlazza	16.14		noun	nom. pl.	masc.	ā-ending	1	II
a	n	unacc		taga	16.14		noun	nom. pl.	masc.	ā-ending	1	II
a	n	unacc		antlazza	16.14		noun	acc. pl.	masc.	compound	1	II
a	y	unacc		danaan	17.12		adv.			ān-adv.	1	II
a	n	unacc	ki	dancha	18.05		noun	acc. pl.	masc.	ā-ending	1	II
a	n	unacc		lihhisarro	18.08		noun	gen. pl.	masc.	compound	1	II
a	n	unacc		suuihharro	19.03		noun	gen. pl.	masc.	āri-suffix	1	II
a	n	unacc		ljhhisarum	19.09		noun	dat. pl.	masc.	compound	1	II
a	n	unacc		mitivvareem	24.06		adj.	dat. pl.	masc.	compound	1	II
a	n	unacc		sunta	24.10		noun	acc. pl.	fem.	ā-ending	1	II
a	n	unacc		sela	25.13		noun	acc. pl.	fem.	ā-ending	1	II
a	n	unacc		huuanan	27.17		adv.			ān-adv.	1	II
a	y	unacc		uzzaan	29.01	*	prep.			ān-adv.	1	II
a	n	unacc		suanarre	29.07		noun	dat. sg.	masc.	āri-suffix	1	II

a	n	unacc		danan	29.17	adv.					1	II
a	n	unacc		danan	29.18	adv.					1	II
a	n	unacc	ke	dancha	32.01	noun		acc. pl.	masc.		1	III
a	n	unacc		kirida	32.14	noun		acc. pl.	fem.		1	III
a	n	unacc		leera	33.14	noun		nom. pl.	fem.		1	III
a	n	unacc		lerarum	35.02	noun		dat. pl.	masc.		1	III
a	y	unacc		danaan	35.16	adv.					1	III
a	n	unacc		vveka	37.10	noun		acc. pl.	masc.		1	III
a	y	unacc		danaan	39.12	adv.					1	III
a	n	unacc		stiaga	40.12	noun		acc. pl.	masc.		1	III
a	n	unacc	ke	dancha	41.07	noun		nom. pl.	masc.		1	III
a	n	unacc		kirida	41.09	noun		acc. pl.	fem.		1	III
a	n	unacc	ke	dancha	42.01	noun		acc. pl.	masc.		1	III
a	n	unacc	ke	dancha	42.02	noun		acc. pl.	masc.		1	III
a	n	unacc	ke	dancha	42.03	noun		nom. pl.	masc.		1	III
a	n	unacc	ki	dancha	42.05	noun		acc. pl.	masc.		1	III
a	n	unacc		uueka	42.17	noun		nom. pl.	masc.		1	III
a	n	unacc		danan	43.12	adv.					1	III
a	n	unacc		kirida	44.14	noun	*	acc. pl.	fem.		1	III
a	n	unacc	ki	dancha	47.07	noun		acc. pl.	masc.		1	IV
a	y	unacc		missitaat	47.15	noun		acc. sg.	fem.	compound	1	IV
a	n	unacc		anfrahidu	49.09	noun	*	dat. sg.	fem.	compound	2	IV
a	n	unacc		achiuizfirjnarij	50.18	noun		nom. sg.	masc.	āri-suffix	2	IV
a	n	unacc		danan	53.10	adv.					3	IV
a	n	unacc		sangarij	54.01	noun		nom. sg.	masc.	āri-suffix	3	IV

a	n	unacc	ki	rechida	54.07	noun	nom. pl.	fem.	ā-ending	3	IV
a	n	unacc		lerarum	54.08	noun	dat. pl.	masc.	āri-suffix	3	IV
a	n	unacc		uuahta	54.16	noun	nom. pl.	fem.	ā-ending	3	IV
a	n	unacc		danan	57.16	adv.			ān-adv.	3	IV
a	n	unacc		danan	58.06	adv.			ān-adv.	3	IV
a	n	unacc		danan	59.11	adv.			ān-adv.	3	IV
a	n	unacc		zuruarjdono	60.01	noun	gen. pl.	fem.	compound	3	IV
a	n	unacc		untarlaz	61.01	noun	acc. sg.	masc.	compound	3	IV
a	n	unacc		santa	63.05	noun	acc. pl.	fem.	ā-ending	3	V
a	n	unacc		santa	63.10	noun	nom. pl.	fem.	ā-ending	3	V
a	n	unacc		danan	63.17	adv.			ān-adv.	3	V
a	n	unacc		danan	64.13	adv.			ān-adv.	3	V
a	n	unacc		tiurjda	65.10	noun	acc. pl.	fem.	ā-ending	3	V
a	n	unacc		zechanninga	70.18	noun	nom. pl.	masc.	ā-ending	3	V
a	n	unacc		lahchida	78.16	noun	acc. pl.	fem.	ā-ending	3	V
a	n	unacc		altarres	82.05	noun	gen. sg.	masc.	āri-suffix	1	VI
a	n	unacc		hreinida	87.09	noun	acc. pl.	fem.	ā-ending	1	VI
a	n	unacc		vvehharre	87.18	noun	nom. pl.	masc.	āri-suffix	1	VI
a	n	unacc		vvehharre	88.08	noun	nom. pl.	masc.	āri-suffix	1	VI
a	n	unacc		allasuuanan	92.14	adv.			ān-adv.	3	VI
a	n	unacc		uuehcharj	92.18	noun	nom. sg.	masc.	āri-suffix	3	VI
a	n	unacc		uuehcharum	93.04	noun	dat. pl.	masc.	āri-suffix	3	VI
a	n	unacc		smalasat	93.18	noun	nom. sg.	fem.	compound	3	VI
a	n	unacc		ubarazalii	94.10	noun	nom. sg.	fem.	compound	3	VI
a	n	unacc		chrjstanemv	94.13	adj.	dat. sg.	masc.	ān-suffix	3	VI



a	n	unacc		ubarazzalii	94.14		noun	nom. sg.	fem.		compound	3	VI
a	n	unacc		ubarazzalii	94.16		noun	nom. sg.	fem.		compound	3	VI
a	n	unacc		<b>municha</b>	96.18	*	noun	nom. pl.	masc.		ā-ending	1	VII
a	n	unacc		sela	97.16		noun	nom. pl.	fem.		ā-ending	1	VII
a	n	unacc		rehchar[j]	106.17	*	noun	nom. sg.	masc.		āri-suffix	3	VII
a	n	unacc		antlaz	107.03	*	noun	acc. sg.	masc.		compound	3	VII
a	n	unacc		unchuschida	112.14		noun	acc. pl.	fem.		ā-ending	3	VIII
a	n	unacc		gangararo	117.14		noun	gen. pl.	masc.		āri-suffix	3	VIII
a	n	unacc		runstaba	119.14		noun	acc. pl.	masc.		ā-ending	3	VIII
a	n	unacc		rahcha	121.17		noun	acc. pl.	fem.		ā-ending	3	VIII
a	n	unacc		kankararum	123.15		noun	dat. pl.	masc.		āri-suffix	3	VIII
a	n	unacc		listarra	124.04		noun	nom. pl.	masc.		ā-ending	3	VIII
a	n	unacc		listarra	124.04		noun	nom. pl.	masc.		āri-suffix	3	VIII
a	n	unacc		listaro	124.13		noun	gen. pl.	masc.		āri-suffix	3	VIII
a	n	unacc		vvihida	128.08		noun	nom. pl.	fem.		ā-ending	3	IX
a	n	unacc		puahstaba	128.11		noun	acc. pl.	masc.		ā-ending	3	IX
a	n	unacc		rahcha	129.07		noun	acc. pl.	fem.		ā-ending	3	IX
a	n	unacc		katilinga	130.12		noun	nom. pl.	masc.		ā-ending	3	IX
a	n	unacc		zehaningarum	137.06		noun	dat. pl.	masc.		āri-suffix	3	IX
a	n	unacc		antrejtda	138.15		noun	acc. pl.	fem.		ā-ending	1	IX
a	n	unacc		antrejtda	140.15		noun	acc. pl.	fem.		ā-ending	1	IX
a	n	unacc		christanum	141.18		adj.	dat. pl.	masc.		ān-suffix	1	IX
a	n	unacc		spentari	142.03		noun	acc. sg.	masc.		āri-suffix	1	IX
a	n	unacc	ki	uuizzida	144.05		noun	acc. pl.	fem.		ā-ending	1	X
a	n	unacc		zuruarjda	144.18		noun	nom. pl.	fem.		ā-ending	1	X

a	n	unacc		zuruarjda	144.18	noun	nom. pl.	fem.	compound	1	X
a	n	unacc		vnstillida	145.05	noun	acc. pl.	fem.	ā-ending	1	X
a	n	unacc		zuruarjda	145.05	noun	acc. pl.	fem.	ā-ending	1	X
a	n	unacc		zuruarjda	145.05	noun	acc. pl.	fem.	compound	1	X
a	n	unacc		danan	146.02	adv.			ān-adv.	1	X
a	n	unacc		zehaningarro	146.16	noun	gen. pl.	masc.	āri-suffix	1	X
a	n	unacc		mitjuuarii	149.08	noun	dat. sg.	fem.	compound	1	X
e	n	unacc		pittames	8.06	verb	1st pl. pres.	opt.	mes-ending	1	I
e	n	unacc		uuellemes	8.09	verb	1st pl. pres.	ind.	mes-ending	1	I
e	n	unacc		pirumes	8.11	verb	1st pl. pres.	ind.	mes-ending	1	I
e	n	unacc		uuanmames	9.02	verb	1st pl. pres.	ind.	mes-ending	1	I
e	n	unacc	er	flaucter	9.07	part. pret.	nom. sg.	masc.	ēr-ending	1	I
e	n	unacc		fleohes	9.07	verb	2nd sg. pres.	opt.	opt.	1	I
e	n	unacc		lirmente	9.13	part. pres.	nom. pl.	masc.	ē-verb	1	I
e	n	unacc	duruh	uonente	9.15	part. pres.	nom. pl.	masc.	ē-verb	1	I
e	n	unacc	teil	nemem	9.16	verb	1st pl. pres.	opt.	opt.	1	I
e	y	unacc	ke	arneem	9.17	verb	1st pl. pres.	opt.	ē-verb opt.	1	I
e	n	unacc		nemes	10.02	verb	2nd sg. pres.	opt.	opt.	1	I
e	n	unacc	ke	uuhter	10.06	part. pret.	nom. sg.	masc.	ēr-ending	1	I
e	n	unacc		sinem	10.08	poss. pron.	dat. pl.	neut.	ēm-ending	1	I
e	n	unacc		uuonet	10.11	verb	3rd sg. pres.	ind.	ē-verb	1	I
e	n	unacc		hlose	10.14	verb	2nd sg. pres.	imp.	ē-verb	1	I
e	n	unacc		huarabes	11.01	verb	2nd sg. pres.	opt.	opt.	1	I
e	y	unacc		ejkaneem	11.04	pron. adj.	dat. pl.	masc.	ēm-ending	1	I
e	n	unacc		chamfanter	11.05	part. pres.	nom. sg.	masc.	ēr-ending	1	I

e	n	unacc	pi	kinnes	11.09		verb	2nd sg. pres.	opt.	opt.	1	I
e	n	unacc		pittes	11.11		verb	2nd sg. pres.	opt.	opt.	1	I
e	n	unacc	ke	uuerdonter	11.12		part. pres.	nom. sg.	masc.	ẽr-ending	1	I
e	n	unacc		ubilem	11.14		adj.	dat. pl.	fem.	ẽm-ending	1	I
e	n	unacc		unserem	11.14		poss. pron.	dat. pl.	fem.	ẽm-ending	1	I
e	n	unacc		sinem	11.16		poss. pron.	dat. pl.	neut.	ẽm-ending	1	I
e	n	unacc	er	polganer	11.17		part. pret.	nom. sg.	masc.	ẽr-ending	1	I
e	n	unacc		forahtanter	12.01		part. pres.	nom. sg.	masc.	ẽr-ending	1	I
e	y	unacc		unsereem	12.02		poss. pron.	dat. pl.	neut.	ẽm-ending	1	I
e	n	unacc	ke	cremiter	12.02		part. pret.	nom. sg.	masc.	ẽr-ending	1	I
e	n	unacc		folgen	12.04		verb	infinitive		ẽ-verb	1	I
e	n	unacc	er	stantames	12.05		verb	1st pl. pres.	opt.	mes-ending	1	I
e	y	unacc	Int	lohhaneem	12.08		part. pret.	dat. pl.	masc.	ẽm-ending	1	I
e	y	unacc	zua	luustrenteeem	12.09		adj.	dat. pl.	neut.	ẽm-ending	1	I
e	n	unacc		unserem	12.09		poss. pron.	dat. pl.	neut.	ẽm-ending	1	I
e	n	unacc		horrames	12.10		verb	1st pl. pres.	opt.	mes-ending	1	I
e	y	unacc		hoorreet	12.13		verb	2nd pl. pres.	ind.	ẽ-verb	1	I
e	n	unacc		haret	13.04		verb	3rd sg. pres.	ind.	ẽ-verb	1	I
e	n	unacc		hoorres	13.07		verb	2nd sg. pres.	opt.	opt.	1	I
e	n	unacc		haben	13.08		verb	infinitive		ẽ-verb	1	I
e	n	unacc		sprehhen	13.11		verb	3rd pl. pres.	opt.	opt.	1	I
e	n	unacc	ki	folge	13.13		verb	2nd sg. pres	imp.	ẽ-verb	1	I
e	y	unacc		tueet	13.14		verb	2nd pl. pres	opt.	opt.	1	I
e	y	unacc		Iuueereem	13.15		poss. pron.	dat. pl.	neut.	ẽm-ending	1	I
e	y	unacc	ki	nemmeet	13.16		verb	2nd pl. pres.	opt.	opt.	1	I

e	y	unacc		vnserem	14.04		poss. pron.	dat. pl.	fem.	ēm-ending	1	I
e	n	unacc		kangames	14.06		verb	1st pl. pres.	ind. or opt.	mes-ending	1	I
e	y	unacc	ke	arneem	14.07		verb	1st pl. pres.	opt.	ē-verb opt.	1	I
e	n	unacc		uuellemes	14.09		verb	1st pl. pres.	ind.	mes-ending	1	I
e	y	unacc		cuateem	14.10		adj.	dat. pl.	fem.	ēm-ending	1	I
e	y	unacc		frahemees	14.11		verb	1st pl. pres.	imp.	ē-verb	1	I
e	y	unacc		frahemees	14.11		verb	1st pl. pres.	imp.	mes-ending	1	I
e	y	unacc		hoorremees	14.15		verb	1st pl. pres.	imp.	mes-ending	1	I
e	y	unacc		luzzileer	15.08		adj.	nom. sg.	masc.	ēr-ending	1	II
e	y	unacc		cuateem	15.10		adj.	dat. pl.	fem.	ēm-ending	1	II
e	y	unacc		cuatliiheet	16.02		verb	3rd sg. pres.	ind.	ē-verb	1	II
e	y	unacc		cuatliihee	16.02		verb	3rd sg. pres.	opt.	ē-verb opt.	1	II
e	n	unacc		desem	16.11		pron.	dat. pl.	masc.	ēm-ending	1	II
e	y	unacc		sineem	16.11		poss. pron.	dat. pl.	masc.	ēm-ending	1	II
e	y	unacc		vviheem	16.11		adj.	dat. pl.	uncertain	ēm-ending	1	II
e	n	unacc		erhafter	16.17		adj.	nom. sg.	masc.	ēr-ending	1	II
e	y	unacc		lebee	17.01		verb	3rd sg. pres.	opt.	ē-verb opt.	1	II
e	n	unacc	int	frahetomes	17.02		verb	1st pl. pret.	ind.	ē-verb	1	II
e	n	unacc	int	frahetomes	17.02		verb	1st pl. pret.	ind.	mes-ending	1	II
e	y	unacc	ke	hortomees	17.03		verb	1st pl. pret.	ind.	mes-ending	1	II
e	y	unacc	er	fullemees	17.04		verb	1st pl. pres.	opt.	mes-ending	1	II
e	n	unacc		pirumes	17.05		verb	1st pl. pres	ind.	mes-ending	1	II
e	n	unacc		lirneton	17.16		verb	3rd pl. pret.	ind.	ē-verb	1	II
e	n	unacc		truhtjnljhem	18.14		adj.	dat. pl.	masc.	ēm-ending	1	II
e	y	unacc	pi	lohaneem	18.15		part. pret.	dat. pl.	masc.	ēm-ending	1	II

e	y	unacc		driskeem	19.04	num.	dat. pl.	masc.	ēm-ending	1	II
e	y	unacc		feoriskeem	19.05	num.	dat. pl.	masc.	ēm-ending	1	II
e	y	unacc		eiganeem	19.07	pron. adj.	dat. pl.	masc.	ēm-ending	1	II
e	y	unacc	vner	laubantjijhheem	19.08	adj.	dat. pl.	neut.	ēm-ending	1	II
e	n	unacc		desem	19.11	pron.	dat. pl.	masc.	ēm-ending	1	II
e	n	unacc	far	lazzanem	19.11	part. pret.	dat. pl.	masc.	ēm-ending	1	II
e	y	unacc		suuigeen	19.11	verb	infinitive		ē-verb	1	II
e	y	unacc	ke	sezzamees	19.13	verb	1st pl. pres.	imp.	mes-ending	1	II
e	y	unacc		qhuememees	19.14	verb	1st pl. pres.	imp.	mes-ending	1	II
e	n	unacc		vvirdiger	19.15	adj.	nom. sg.	masc.	ēr-ending	1	II
e	n	unacc		haremees	20.04	verb	1st pl. pres.	ind.	ē-verb	1	II
e	y	unacc		haremees	20.04	verb	1st pl. pres.	ind.	mes-ending	1	II
e	n	unacc	ana	hljinentj	20.14	part. pres.			ē-verb	1	II
e	y	unacc		suhtigeem	21.02	adj.	dat. pl.	fem.	ēm-ending	1	II
e	y	unacc		inpuntaneer	21.04	part. pret.	nom. sg.	masc.	ēr-ending	1	II
e	n	unacc	far	manenti	21.07	part. pres.			ē-verb	1	II
e	n	unacc	vn	horsamen	21.09	adj.	dat. pl.	neut.	ēm-ending	1	II
e	n	unacc		eddesuueliher	21.11	indef. pron.	nom. sg.	masc.	ēr-ending	1	II
e	n	unacc		sinem	21.12	poss. pron.	dat. pl.	masc.	ēm-ending	1	II
e	y	unacc	far	stantanteem	21.15	part. pres.	dat. pl.	masc.	ēm-ending	1	II
e	y	unacc		herteem	21.16	adj.	dat. pl.	masc.	ēm-ending	1	II
e	n	unacc		sinem	21.17	poss. pron.	dat. pl.	fem.	ēm-ending	1	II
e	y	unacc		sineem	22.02	poss. pron.	dat. pl.	fem.	ēm-ending	1	II
e	y	unacc		andreem	22.03	num.	dat. pl.	uncertain	ēm-ending	1	II
e	n	unacc	for	sagenti	22.03	part. pres.			ē-verb	1	II

e	y	unacc	far	choraneer	22.04		part. pret.	nom. sg.	masc.	ẽr-ending	1	II
e	n	unacc		fietos	22.08		verb	2nd sg. pret.	ind.	ẽ-verb	1	II
e	y	unacc		cuateem	22.14		adj.	dat. pl.	fem.	ẽm-ending	1	II
e	n	unacc		ejner	22.14		num.	nom. sg.	masc.	ẽr-ending	1	II
e	n	unacc		andrer	22.14		num.	nom. sg.	masc.	ẽr-ending	1	II
e	n	unacc		friger	22.16		adj.	nom. sg.	masc.	ẽr-ending	1	II
e	n	unacc		frjer	23.04		adj.	nom. sg.	masc.	ẽr-ending	1	II
e	n	unacc		pirumes	23.04		verb	1st pl. pres.	ind.	mes-ending	1	II
e	n	unacc		tragames	23.05		verb	1st pl. pres.	ind.	mes-ending	1	II
e	n	unacc		pirumes	23.08		verb	1st pl. pres.	ind.	mes-ending	1	II
e	y	unacc		cuateem	23.09		adj.	dat. pl.	neut.	ẽm-ending	1	II
e	y	unacc		andreem	23.09		num.	dat. pl.	uncertain	ẽm-ending	1	II
e	y	unacc		alleem	23.11		adj.	dat. pl.	masc.	ẽm-ending	1	II
e	y	unacc		alleem	23.12		adj.	dat. pl.	masc.	ẽm-ending	1	II
e	y	unacc	vn	ekihafteem	24.05		adj.	dat. pl.	masc.	ẽm-ending	1	II
e	y	unacc		stilleem	24.05		adj.	dat. pl.	masc.	ẽm-ending	1	II
e	n	unacc		horsamem	24.06		adj.	dat. pl.	masc.	ẽm-ending	1	II
e	y	unacc		mitivvareem	24.06		adj.	dat. pl.	masc.	ẽm-ending	1	II
e	y	unacc		dultjeem	24.07		adj.	dat. pl.	masc.	ẽm-ending	1	II
e	y	unacc	fram	kangeen	24.07	*	verb	3rd pl. pres.	opt.	opt.	1	II
e	n	unacc	far	manente	24.08		part. pres.	acc. pl.	masc.	ẽ-verb	1	II
e	y	unacc	zua	manomees	24.09		verb	1st pl. pres.	ind.	mes-ending	1	II
e	y	unacc	pi	kirneen	24.11	*	verb	3rd pl. pres.	opt.	opt.	1	II
e	y	unacc		herteem	25.02		adj.	dat. pl.	masc.	ẽm-ending	1	II
e	y	unacc	vn	kiuuareem	25.02		adj.	dat. pl.	masc.	ẽm-ending	1	II

e	n	unacc	vn	fruater	25.05		adj.		nom. sg.	masc.	ẽr-ending	1	II
e	y	unacc		alleem	25.18		adj.		dat. pl.	masc.	ẽm-ending	1	II
e	y	unacc	ke	doleet	26.02		part. pret.				ẽ-verb	1	II
e	y	unacc		erdliheem	26.08		adj.		dat. pl.	fem.	ẽm-ending	1	II
e	y	unacc	ze	farantljheem	26.08		adj.		dat. pl.	fem.	ẽm-ending	1	II
e	y	unacc	ze	risenteem	26.08		adj.		dat. pl.	fem.	ẽm-ending	1	II
e	n	unacc	er	kebanter	26.11		part. pres.		nom. sg.	masc.	ẽr-ending	1	II
e	y	unacc		furahtanteem	26.16		part. pres.		dat. pl.	masc.	ẽm-ending	1	II
e	y	unacc		haben	27.02		verb		infinitive		ẽ-verb	1	II
e	y	unacc	er	kebanteer	27.04		part. pres.		nom. sg.	masc.	ẽr-ending	1	II
e	y	unacc	pi	folahaneem	27.07		adj.		dat. pl.	neut.	ẽm-ending	1	II
e	y	unacc		fremideem	27.08		adj.		dat. pl.	fem.	ẽm-ending	1	II
e	y	unacc		porakee	27.08		verb		3rd sg. pres.	opt.	ẽ-verb opt.	1	II
e	y	unacc		sineem	27.09		poss. pron.		dat. pl.	unclear	ẽm-ending	1	II
e	y	unacc	pi	huctigeer	27.09		adj.		nom. sg.	masc.	ẽr-ending	1	II
e	y	unacc		sineem	27.10		poss. pron.		dat. pl.	fem.	ẽm-ending	1	II
e	y	unacc	ke	puazteer	27.12		pp		nom. sg.	masc.	ẽr-ending	1	II
e	y	unacc		qhuedamees	28.03		verb		1st pl. pres.	ind.	mes-ending	1	II
e	y	unacc		kebeen	28.04		verb		3rd pl. pres.	opt.	opt.	1	II
e	y	unacc	er	paldeen	28.06		verb		3rd pl. pres.	opt.	ẽ-verb opt.	1	II
e	y	unacc		skirmeen	28.07		verb		infinitive		ẽ-verb	1	II
e	y	unacc		hangeet	28.08		verb		3rd sg. pres.	ind.	ẽ-verb	1	II
e	y	unacc		hoorreen	28.10		verb		3rd pl. pres.	opt.	opt.	1	II
e	y	unacc		hoorreen	28.11		verb		infinitive		ẽ-verb	1	II
e	y	unacc		alleem	28.13		adj.		dat. pl.	neut.	ẽm-ending	1	II





e	y	unacc	ana	hlineet	35.15	verb	3rd sg. pres.	ind.	ẽ-verb	1	III
e	n	unacc		enger	35.17	adj.	nom. sg.	masc.	ẽr-ending	1	III
e	n	unacc		lebente	36.01	part. pres.	nom. pl.	masc.	ẽ-verb	1	III
e	n	unacc		lebente	36.19	part. pres.	nom. pl.	masc.	ẽ-verb	1	III
e	y	unacc	ke	folgeet	37.05	part. pret.			ẽ-verb	1	III
e	y	unacc		tuamees	37.09	verb	1st pl. pres.	imp.	mes-ending	1	III
e	n	unacc	er	tumbeta	37.12	verb	1st sg. pret.	ind.	ẽ-verb	1	III
e	y	unacc		cuateem	37.13	adj.	dat. pl.	uncertain	ẽm-ending	1	III
e	n	unacc		suuiketa	37.13	verb	1st sg. pret.	ind.	ẽ-verb	1	III
e	y	unacc		cuateem	37.14	adj.	dat. pl.	fem.	ẽm-ending	1	III
e	y	unacc		suuigeen	37.15	verb	infinitive		ẽ-verb	1	III
e	y	unacc		vbileem	37.16	adj.	dat. pl.	neut.	ẽm-ending	1	III
e	y	unacc		cuateem	37.18	adj.	dat. pl.	fem.	ẽm-ending	1	III
e	y	unacc		uuuheem	37.18	adj.	dat. pl.	fem.	ẽm-ending	1	III
e	y	unacc		duruhnnohteem	38.01	adj.	dat. pl.	masc.	ẽm-ending	1	III
e	y	unacc		suuigeen	38.07	verb	infinitive		ẽ-verb	1	III
e	y	unacc		alleem	38.13	adj.	dat. pl.	fem.	ẽm-ending	1	III
e	y	unacc	nidar	remees	38.14	verb	1st pl. pres.	ind.	mes-ending	1	III
e	y	unacc	far	lazzamees	38.16	verb	1st pl. pres.	ind.	mes-ending	1	III
e	y	unacc		hareet	38.17	verb	3rd sg. pres.	ind.	ẽ-verb	1	III
e	y	unacc	pi	porageen	39.04	verb	infinitive		ẽ-verb	1	III
e	y	unacc		vvellemees	39.13	verb	1st pl. pres.	ind.	mes-ending	1	III
e	y	unacc		vvellemees	39.16	verb	1st pl. pres.	ind.	mes-ending	1	III
e	y	unacc		vnserem	39.17	poss. pron.	dat. pl.	fem.	ẽm-ending	1	III
e	y	unacc	vf	stiganteem	39.18	part. pres.	dat. pl.	masc.	ẽm-ending	1	III

e	y	unacc		unseer	40.08	*	pers, pron	gen. sg.				1	III
e	y	unacc		qhuuedamees	40.10		verb	1st pl. pres.	ind.		mes-ending	1	III
e	y	unacc	vf	stiganteem	40.14		part. pres.	dat. pl.		masc.	ẽm-ending	1	III
e	n	unacc	far	manente	41.02		part. pres.	nom. pl.		masc.	ẽ-verb	1	III
e	n	unacc		forahtanter	41.04	*	part. pres.	dat. pl.		masc.	ẽm-ending	1	III
e	n	unacc	ke	karater	41.05		part. pret.	nom. sg.		masc.	ẽr-ending	1	III
e	y	unacc		vnseereem	41.16		poss. pron.	dat. pl.		masc.	ẽm-ending	1	III
e	y	unacc	pi	huctigeer	42.05		adj.	nom. sg.		masc.	ẽr-ending	1	III
e	y	unacc		piderbeer	42.06		adj.	nom. sg.		masc.	ẽr-ending	1	III
e	n	unacc	un	biuamter	42.07		adj.	nom. sg.		masc.	ẽr-ending	1	III
e	y	unacc		dineem	42.12		poss. pron.	dat. pl.		masc.	ẽm-ending	1	III
e	y	unacc		pittamees	42.12		verb	1st pl. pres.	ind.		mes-ending	1	III
e	y	unacc		vnseereem	42.15		poss. pron.	dat. pl.			ẽm-ending	1	III
e	n	unacc	pi	porakemes	42.16		verb	1st pers. pl. pres	ind.		ẽ-verb	1	III
e	n	unacc	pi	porakemes	42.16		verb	1st pers. pl. pres	ind.		mes-ending	1	III
e	n	unacc	pi	porakemees	43.02		verb	1st pers. pl. pres	ind.		ẽ-verb	1	III
e	y	unacc	pi	porakemees	43.02		verb	1st pers. pl. pres	ind.		mes-ending	1	III
e	y	unacc		ruahhalosontem	43.03		part. pres.	dat. pl.		masc.	ẽm-ending	1	III
e	y	unacc	ke	laubpamees	43.07		verb	1st pl. pres.	ind.		mes-ending	1	III
e	n	unacc	pi	porgenne	43.09		verb	inf. dat.			ẽ-verb	1	III
e	n	unacc	ke	sazter	43.12		part. pret.	nom. sg.		masc.	ẽr-ending	1	III
e	y	unacc		dineem	43.14		poss. pron.	dat. pl.		fem.	ẽm-ending	1	III
e	y	unacc		kangees	43.14		verb	2nd sg. pres.	opt.		opt.	1	III
e	y	unacc	ke	zeliteem	44.01		part. pret.	dat. pl.		masc.	ẽm-ending	1	III
e	y	unacc		porgeenne	44.03		verb	inf. dat.			ẽ-verb	1	III

e	n	unacc		erhafter	44.08	adj.	nom. sg.	masc.	ẽr-ending	1	III
e	n	unacc		suuigeta	44.11	verb	1st sg. pret.	ind.	ẽ-verb	1	III
e	y	unacc		vvortaneer	45.07	part. pret.	nom. sg.	masc.	ẽr-ending	1	III
e	y	unacc		herteem	45.09	adj.	dat. pl.	fem.	ẽm-ending	1	III
e	y	unacc		vvidaruuateem	45.10	adj.	dat. pl.	fem.	ẽm-ending	1	III
e	y	unacc	ana	prunganeem	45.11	pp	dat. pl.	neut.	ẽm-ending	1	III
e	n	unacc		suuigentun	45.11	part. pres.	dat. sg.	fem.	ẽ-verb	1	III
e	n	unacc	far	dolentj	45.13	part. pres.			ẽ-verb	1	III
e	y	unacc		muadee	45.13	verb	3rd sg. pres.	opt.	ẽ-verb opt.	1	III
e	y	unacc		deseer	45.15	pron. adj.	nom. sg.	masc.	ẽr-ending	1	III
e	y	unacc	ke	haltaneer	45.15	part. pret.	nom. sg.	masc.	ẽr-ending	1	III
e	y	unacc	Int	habee	45.17	verb	2nd sg. pres	imp.	ẽ-verb	1	III
e	y	unacc	far	doleen	46.01	verb	infinitive		ẽ-verb	1	III
e	y	unacc		pirumees	46.03	verb	1st pl. pres	ind.	mes-ending	1	III
e	n	unacc	ke	folget	46.05	part. pret.			ẽ-verb	1	III
e	y	unacc		alleem	46.07	adj.	dat. pl.	neut.	ẽm-ending	1	III
e	y	unacc	ubar	vvinnamees	46.07	verb	1st pl. pres	ind.	mes-ending	1	III
e	y	unacc	ke	folgeet	46.14	part. pret.			ẽ-verb	1	III
e	y	unacc		uuidarvvarteem	46.17	adj.	dat. pl.	neut.	ẽm-ending	1	III
e	n	unacc		keben	46.18	verb	3rd pl. pres.	opt.	opt.	1	III
e	y	unacc		kebeen	47.01	verb	3rd pl. pres.	opt.	opt.	1	IV
e	y	unacc	far	laazzeen	47.02	verb	3rd pl. pres.	opt.	opt.	1	IV
e	y	unacc	far	doleent	47.05	verb	3rd pl. pres.	ind.	ẽ-verb	1	IV
e	n	unacc		cuater	47.14	adj.	nom. sg.	masc.	ẽr-ending	1	IV
e	y	unacc	far	doleent	47.19	verb	3rd pl. pres.	ind.	ẽ-verb	1	IV

e	n	unacc	ke	habenter	48.04		part. pres.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc	ke	habenter	48.04		part. pres.	nom. sg.	masc.	ē-verb	2	IV
e	n	unacc	ke	prauhoter	48.08		part. pret.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc		uuortaner	48.09		part. pret.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc		allem	48.11		adj.	dat. pl.	masc.	ēm-ending	2	IV
e	n	unacc	er	hapener	48.16		part. pret.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc	ke	deonoter	48.17		part. pret.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc	ke	scanter	48.18		part. pret.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc		lirnem	49.01		verb	1st sg. pres.	ind.	ē-verb	2	IV
e	n	unacc		zunkaler	49.12		adj.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc		funser	49.15		adj.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc		samfter	49.15		adj.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc	un	fruater	49.16		adj.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc		hlutreister	50.04		adj.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc		spaher	50.05		adj.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc		foem	50.06		adj.	dat. pl.	neut.	ēm-ending	2	IV
e	n	unacc		sehhanthem	50.10		part. pres.	dat. pl.	uncertain	ēm-ending	2	IV
e	n	unacc	ke	stactem	50.14		part. pret.	dat. pl.	fem.	ēm-ending	2	IV
e	n	unacc		sinem	50.19		poss. pron.	dat. pl.	fem.	ēm-ending	1	IV
e	n	unacc	ki	stactem	51.01		part. pret.	dat. pl.	fem.	ēm-ending	2	IV
e	n	unacc		uuirdiker	51.02		adj.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc	ke	poganer	51.04		part. pret.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc	ke	deonoter	51.05		part. pret.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc		desem	51.06		pron.	dat. pl.	masc.	ēm-ending	2	IV
e	n	unacc		allem	51.06		adj.	dat. pl.	masc.	ēm-ending	2	IV

e	n	unacc	ufki	stikanem	51.07		part. pret.	dat. pl.	masc.	ēm-ending	2	IV
e	n	unacc	ke	uuerdonter	51.17		part. pres.	nom. sg.	masc.	ēr-ending	2	IV
e	n	unacc	er	stanten	52.06		verb	3rd pl. pres.	opt.	opt.	3	IV
e	n	unacc		lirne	52.09		verb	inf.dat.		ē-verb	3	IV
e	n	unacc	ana	deonoen	52.10		verb	3rd pl. pres.	opt.	opt.	3	IV
e	n	unacc	ka	qhuetanem	52.11		part. pret.	dat. pl.	uncertain	ēm-ending	3	IV
e	n	unacc	ka	folget	52.16		part. pret.			ē-verb	3	IV
e	n	unacc	ki	folget	53.10		part. pret.			ē-verb	3	IV
e	n	unacc	ki	chvetanem	53.12		part. pret.	dat. pl.	uncertain	ēm-ending	3	IV
e	n	unacc		sizzantem	53.13		part. pres.	dat. pl.	masc.	ēm-ending	3	IV
e	n	unacc		allem	53.14		adj.	dat. pl.	masc.	ēm-ending	3	IV
e	n	unacc	er	stanten	54.03		verb	3rd pl. pres.	opt.	opt.	3	IV
e	n	unacc	ki	namtem	54.07		part. pret.	dat. pl.	masc.	ēm-ending	3	IV
e	n	unacc		rehtculichontem	54.08	*	adj.	dat. pl.	masc.	ēm-ending	3	IV
e	n	unacc		desem	54.10		pron.	dat. pl.	fem.	ēm-ending	3	IV
e	n	unacc	ki	folget	54.11		part. pret.			ē-verb	3	IV
e	n	unacc		desem	54.13		pron.	dat. pl.	masc.	ēm-ending	3	IV
e	n	unacc	ki	folget	54.13		part. pret.			ē-verb	3	IV
e	n	unacc	ki	nade	54.15		verb	2nd sg. pres	imp.	ē-verb	3	IV
e	n	unacc	ki	habet	55.03		part. pret.			ē-verb	3	IV
e	n	unacc		skammer	55.08		adj.	nom. sg.	masc.	ēr-ending	3	IV
e	n	unacc	untar	folget	55.09		part. pret.			ē-verb	3	IV
e	n	unacc		truhtinlihem	55.16		adj.	dat. pl.	masc.	ēm-ending	3	IV
e	n	unacc	ki	habet	55.18		part. pret.			ē-verb	3	IV
e	n	unacc	ka	sezamez	56.01	*	verb	1st pl. pres.	ind.	mes-ending	3	IV

e	n	unacc		allem	56.02		adj.		dat. pl.		masc.	ēm-ending	3	IV
e	n	unacc	auar	sizantem	56.02		part. pres.		dat. pl.		masc.	ēm-ending	3	IV
e	n	unacc		qhuatumes	56.04		verb		1st pl. pres.		ind.	mes-ending	3	IV
e	n	unacc	er	stantem	56.08	*	verb		3rd pl. pres.		opt.	opt.	3	IV
e	n	unacc	ki	folget	56.09		part. pret.					ē-verb	3	IV
e	n	unacc		allem	57.04		adj.		dat. pl.		masc.	ēm-ending	3	IV
e	n	unacc		stantem	57.04		part. pres.		dat. pl.		masc.	ēm-ending	3	IV
e	n	unacc	unter	folget	57.05		part. pret.					ē-verb	3	IV
e	n	unacc		antlenken	57.05		verb		3rd pl. pres.		opt.	opt.	3	IV
e	n	unacc	pi	kinnen	57.08		verb		3rd pl. pres.		opt.	opt.	3	IV
e	n	unacc		habet	57.11		part. pret.					ē-verb	3	IV
e	n	unacc	er	stanten	57.12		verb		3rd pl. pres.		opt.	opt.	3	IV
e	n	unacc	ki	porket	57.14		part. pret.					ē-verb	3	IV
e	n	unacc		sunrijgem	58.13		adj.		dat. pl.		masc.	ēm-ending	3	IV
e	n	unacc	kakan	laufen	58.17		verb		3rd pl. pres.		opt.	opt.	3	IV
e	n	unacc		andarer	59.04		num.		nom. sg.		masc.	ēr-ending	3	IV
e	n	unacc		andrer	59.06		num.		nom. sg.		masc.	ēr-ending	3	IV
e	n	unacc		andrem	59.08		num.		dat. pl.		masc.	ēm-ending	3	IV
e	n	unacc	ka	folget	59.11		part. pret.					ē-verb	3	IV
e	n	unacc		allem	59.18		adj.		dat. pl.		masc.	ēm-ending	3	IV
e	n	unacc	ke	horrantem	60.01		part. pres.		dat. pl.		masc.	ēm-ending	3	IV
e	n	unacc	ki	uonont	60.02		verb		3rd pl. pres.		ind.	ē-verb	3	IV
e	n	unacc	far	lazzames	60.05		verb		1st pl. pres.		ind.	mes-ending	3	IV
e	n	unacc		hrein	60.05		verb		3rd pl. pres.		opt.	opt.	3	IV
e	n	unacc		andrem	60.06		num.		dat. pl.		uncertain	ēm-ending	3	IV

e	n	unacc		allem	60.08		adj.		dat. pl.	masc.	ēm-ending	3	IV
e	n	unacc		<b>allem</b>	60.10		adj.		dat. pl.	fem.	ēm-ending	3	IV
e	n	unacc		qhuatumes	60.11		verb		1st pl. pres.	ind.	mes-ending	3	IV
e	n	unacc	ke	habet	60.16		part. pret.				ē-verb	3	IV
e	n	unacc		<b>allem</b>	61.04		adj.		dat. pl.	fem.	ēm-ending	3	IV
e	n	unacc	<b>duruhan</b>	pintames	62.02		verb		1st pl. pres.	ind. or opt.	mes-ending	3	IV
e	n	unacc		desem	62.07		pron.		dat. pl.	fem.	ēm-ending	3	IV
e	n	unacc		rahhomes	62.08		verb		1st pl. pres.	ind. or opt.	mes-ending	3	IV
e	n	unacc	ki	saztomes	62.14		verb		1st pl. pret.	ind.	mes-ending	3	IV
e	n	unacc		folgentem	62.15		part. pres.		dat. pl.	fem.	ēm-ending	3	IV
e	n	unacc		folgentem	62.15		part. pres.		dat. pl.	fem.	ē-verb	3	IV
e	n	unacc	ka	sehames	62.15		verb		1st pl. pres.	ind.	mes-ending	3	IV
e	n	unacc		andrem	64.17		num.		dat. pl.	uncertain	ēm-ending	3	V
e	n	unacc		andrem	65.03		num.		dat. pl.	masc.	ēm-ending	3	V
e	n	unacc		allem	66.09		adj.		dat. pl.	masc.	ēm-ending	3	V
e	n	unacc		missilihchem	66.15		adj.		dat. pl.	fem.	ēm-ending	3	V
e	n	unacc		luziler	67.06		adj.		nom. sg.	masc.	ēr-ending	3	V
e	n	unacc	pi	lihchet	68.05		verb		3rd sg. pres.	ind.	ē-verb	3	V
e	n	unacc		alonger	68.06		adj.		nom. sg.	masc.	ēr-ending	3	V
e	n	unacc	ki	uuartet	68.07		part. pret.				ē-verb	3	V
e	n	unacc		lesames	68.16		verb		1st pl. pres.	ind.	mes-ending	3	V
e	n	unacc	<b>duruhin</b>	pintames	69.01		verb		1st pl. pres.	ind. or opt.	mes-ending	3	V
e	n	unacc	ki	laubames	69.03		verb		1st pl. pres.	ind.	mes-ending	3	V
e	n	unacc		uualtantem	69.18		part. pres.		dat. pl.	masc.	ēm-ending	3	V
e	n	unacc		sihchurer	71.04		adj.		nom. pl.	masc.	ēr-ending	3	V

e	n	unacc		edesihiher	71.08		adj.	nom. sg.	masc.	ēr-ending	3	V
e	n	unacc	ka	plater	71.08		part. pret.	nom. sg.	masc.	ēr-ending	3	V
e	n	unacc		lastarlihher	71.09		adj.	nom. sg.	masc.	ēr-ending	3	V
e	n	unacc	ka	rjhter	71.10		part. pret.	nom. sg.	masc.	ēr-ending	3	V
e	n	unacc		resten	72.04		verb	3rd pl. pres.	opt.	opt.	3	V
e	n	unacc		einstrjter	73.04		adj.	nom. sg.	masc.	ēr-ending	3	V
e	n	unacc	un	horsamer	73.04		adj.	nom. sg.	masc.	ēr-ending	3	V
e	n	unacc	un	kauuarer	73.15		adj.	nom. sg.	masc.	ēr-ending	3	V
e	n	unacc		deser	74.18		pron	nom. sg.	masc.	ēr-ending	3	V
e	n	unacc		hejler	75.10		adj.	nom. sg.	masc.	ēr-ending	3	V
e	n	unacc	framki	uuisen	76.16		verb	3rd pl. pres.	opt.	opt.	3	V
e	n	unacc	pi	folahenem	77.07		adj.	dat. pl.	uncertain	ēm-ending	3	V
e	n	unacc	eban	dolenti	78.01		part. pres.			ē-verb	3	V
e	n	unacc		sinem	78.02		poss. pron.	dat. pl.	fem.	ēm-ending	3	V
e	n	unacc	ka	rafster	78.06		part. pret.	nom. sg.	masc.	ēr-ending	3	V
e	n	unacc		arneysamoter	78.08		pp	nom. sg.	masc.	ēr-ending	3	V
e	n	unacc	fram	kangen	78.10		verb	3rd pl. pres.	opt.	opt.	3	V
e	n	unacc	ungi	laubiger	79.11		adj.	nom. sg.	masc.	ēr-ending	1	VI
e	y	unacc		haben	80.09		verb	infinitive		ē-verb	1	VI
e	y	unacc		sarfeem	80.15		adj.	dat. pl.	fem.	ēm-ending	1	VI
e	y	unacc		spaheer	81.01		adj.	nom. sg.	masc.	ēr-ending	1	VI
e	n	unacc		riiffer	81.02		adj.	nom. sg.	masc.	ēr-ending	1	VI
e	y	unacc		chvskeer	81.02		adj.	nom. sg.	masc.	ēr-ending	1	VI
e	y	unacc		ezzaleer	81.03		adj.	nom. sg.	masc.	ēr-ending	1	VI
e	y	unacc		preiteer	81.03		adj.	nom. sg.	masc.	ēr-ending	1	VI



e	y	unacc		truabaleer	81.03		adj.	nom. sg.	masc.	ẽr-ending	1	VI
e	n	unacc		trager	81.04		adj.	nom. sg.	masc.	ẽr-ending	1	VI
e	n	unacc		uuidarmuater	81.04		adj.	nom. sg.	masc.	ẽr-ending	1	VI
e	n	unacc		spildanter	81.04		part. pres.	nom. sg.	masc.	ẽr-ending	1	VI
e	y	unacc		alleem	81.07		adj.	dat. pl.	neut.	ẽm-ending	1	VI
e	n	unacc	far	manento	81.11	*	part. pres.	nom. sg.	masc.	ẽ-verb	1	VI
e	n	unacc		allem	82.02		adj.	dat. pl.	masc.	ẽm-ending	1	VI
e	y	unacc	er	kebaneer	82.03	*	part. pres.	nom. sg.	masc.	ẽr-ending	1	VI
e	n	unacc		spildanter	82.07		part. pres.	nom. sg.	masc.	ẽr-ending	1	VI
e	y	unacc		habee	82.16		verb	3rd sg. pres.	opt.	ẽ-verb opt.	1	VI
e	y	unacc	er	paldee	82.18		verb	3rd sg. pres.	opt.	ẽ-verb opt.	1	VI
e	y	unacc		deseem	83.02		pron.	dat. pl.	masc.	ẽm-ending	1	VI
e	y	unacc	ke	arneet	83.04		part. pret.			ẽ-verb	1	VI
e	y	unacc	ke	holfaneer	83.07		part. pret.	nom. sg.	masc.	ẽr-ending	1	VI
e	y	unacc	ke	ljmfanteem	83.09		part. pres.	dat. pl.	fem.	ẽm-ending	1	VI
e	n	unacc	ki	rafster	85.09		part. pret.	nom. sg.	masc.	ẽr-ending	3	VI
e	n	unacc	ein	luzlihchem	85.15		adj.	dat. pl.	uncertain	ẽm-ending	3	VI
e	n	unacc	ka	rafster	86.11		part. pret.	nom. sg.	masc.	ẽr-ending	3	VI
e	n	unacc	vn	chreftigem	86.16		adj.	dat. pl.	masc.	ẽm-ending	3	VI
e	n	unacc	pi	hafter	86.16		adj.	nom. sg.	masc.	ẽr-ending	3	VI
e	n	unacc	uzki	kanganer	87.08		part. pret.	nom. sg.	masc.	ẽr-ending	1	VI
e	n	unacc		suuerben	87.11		verb	3rd pl. pres.	opt.	opt.	1	VI
e	n	unacc	ke	kanganer	87.13		part. pret.	nom. sg.	masc.	ẽr-ending	1	VI
e	n	unacc		uuasken	87.14		verb	3rd pl. pres.	opt.	opt.	1	VI
e	y	unacc	Int	haben	88.07		verb	3rd pl. pres.	opt.	ẽ-verb opt.	1	VI

e	y	unacc	ke	entoteem	88.09		part. pret.	dat. pl.	neut.	ẽm-ending	1	VI
e	n	unacc	ke	trostanter	88.15		part. pres.	nom. sg.	masc.	ẽr-ending	1	VI
e	n	unacc	vntar	folkentj	88.17		part. pres.			ẽ-verb	1	VI
e	y	unacc	ke	doleet	89.18		part. pret.			ẽ-verb	1	VI
e	n	unacc		iungem	90.06		adj.	dat. pl.	uncertain	ẽm-ending	1	VI
e	y	unacc		uuanahẽjeleem	90.08		adj.	dat. pl.	masc.	ẽm-ending	1	VI
e	y	unacc	ke	haben	90.10		verb	3rd pl. pres.	opt.	ẽ-verb opt.	1	VI
e	n	unacc		lesanter	91.11		part. pres.	nom. sg.	masc.	ẽr-ending	1	VI
e	n	unacc		nohheiner	92.10		indef. pron.	nom. sg.	masc.	ẽr-ending	3	VI
e	n	unacc		einiger	92.13		indef. pron.	nom. sg.	masc.	ẽr-ending	3	VI
e	y	unacc		doleen	93.03		verb	infinitive		ẽ-verb	3	VI
e	n	unacc		zimberren	93.07		verb	3rd pl. pres.	opt.	opt.	3	VI
e	n	unacc	ke	nuhtsamoen	93.16		verb	3rd pl. pres.	opt.	opt.	3	VI
e	n	unacc		abandmuasontem	94.06		adj.	dat. pl.	masc.	ẽm-ending	3	VI
e	n	unacc		allem	95.01		adj.	dat. pl.	neut.	ẽm-ending	3	VII
e	n	unacc		<b>allem</b>	95.03		adj.	dat. pl.	masc.	ẽm-ending	3	VII
e	n	unacc		allem	95.03		adj.	dat. pl.	masc.	ẽm-ending	3	VII
e	n	unacc		allem	95.04		adj.	dat. pl.	masc.	ẽm-ending	3	VII
e	n	unacc		uuanahẽilem	95.04		adj.	dat. pl.	masc.	ẽm-ending	3	VII
e	n	unacc		siuchem	95.05		adj.	dat. pl.	masc.	ẽm-ending	3	VII
e	n	unacc		einer	95.06		num.	nom. sg.	masc.	ẽr-ending	3	VII
e	n	unacc		eocouuelicher	95.06		pron. adj.	nom. sg.	masc.	ẽr-ending	3	VII
e	n	unacc		sumer	95.07		pron. adj.	nom. sg.	masc.	ẽr-ending	3	VII
e	n	unacc		sumer	95.07		pron. adj.	nom. sg.	masc.	ẽr-ending	3	VII
e	n	unacc		habenti	95.15		part. pres.			ẽ-verb	3	VII

e	n	unacc		lesames	96.03	verb	1st pl. pres.	ind.	mes-ending	1	VII
e	n	unacc		unserem	96.05	poss. pron.	dat. pl.	fem.	ēm-ending	1	VII
e	n	unacc	ke	henkames	96.07	verb	1st pl. pres.	ind.	mes-ending	1	VII
e	n	unacc		abandmuasen	97.04	verb	3rd pl. pres.	opt.	ē-verb	1	VII
e	n	unacc		andrem	97.09	num.	dat. pl.	masc.	ēm-ending	1	VII
e	n	unacc		caumoen	97.10	verb	3rd pl. pres.	opt.	opt.	1	VII
e	n	unacc		dratter	97.12	pron. adj.	nom. sg.	masc.	ēr-ending	1	VII
e	n	unacc		tuen	97.18	verb	3rd pl. pres.	opt.	opt.	1	VII
e	n	unacc		cilen	98.14	verb	infinitive		ē-verb	1	VII
e	n	unacc		nahtijhem	98.15	adj.	dat. pl.	fem.	ēm-ending	1	VII
e	n	unacc		andrem	99.07	num.	dat. pl.	uncertain	ēm-ending	1	VII
e	n	unacc	zua	kangen	99.10	verb	3rd pl. pres.	opt.	opt.	1	VII
e	n	unacc	ke	leranem	99.11	part. pret.	dat. pl.	masc.	ēm-ending	1	VII
e	n	unacc		qhvuedames	99.11	verb	1st pl. pres.	ind.	mes-ending	1	VII
e	n	unacc		allem	99.13	adj.	dat. pl.	masc.	ēm-ending	1	VII
e	n	unacc	kakan	hlauffantem	99.14	part. pres.	dat. pl.	masc.	ēm-ending	1	VII
e	n	unacc	pi	hafter	99.16	adj.	nom. sg.	masc.	ēr-ending	1	VII
e	n	unacc	uz	kankantem	99.18	part. pres.	dat. pl.	masc.	ēm-ending	1	VII
e	n	unacc		fundaner	100.03	part. pret.	nom. sg.	masc.	ēr-ending	1	VII
e	n	unacc	far	lazzanem	100.14	part. pret.	dat. pl.	neut.	ēm-ending	1	VII
e	n	unacc		allem	100.15	adj.	dat. pl.	neut.	ēm-ending	1	VII
e	n	unacc		nahtijhem	101.02	adj.	dat. pl.	fem.	ēm-ending	1	VII
e	n	unacc		vvellemes	101.06	verb	1st pl. pres.	ind.	mes-ending	1	VII
e	n	unacc		allem	101.08	adj.	dat. pl.	masc.	ēm-ending	1	VII
e	n	unacc		ruahhalosontem	101.09	part. pres.	dat. pl.	masc.	ēm-ending	1	VII

e	n	unacc		soljhhem	101.09		pron. adj.	dat. pl.	masc.	ēm-ending	1	VII
e	n	unacc		allem	101.11		adj.	dat. pl.	masc.	ēm-ending	1	VII
e	n	unacc		allem	101.15		adj.	dat. pl.	masc.	ēm-ending	1	VII
e	n	unacc		puazzen	101.16		verb	3rd pl. pres.	opt.	opt.	1	VII
e	n	unacc		piliben	101.17		verb	3rd pl. pres.	opt.	opt.	1	VII
e	n	unacc		puazzen	102.05		verb	3rd pl. pres.	opt.	opt.	1	VII
e	n	unacc		tagaljhhem	102.06		adj.	dat. pl.	fem.	ēm-ending	1	VII
e	n	unacc		qhuatumes	102.10		verb	1st pl. pres.	ind.	mes-ending	1	VII
e	n	unacc	zua	kangen	102.16		verb	3rd pl. pres.	opt.	opt.	1	VII
e	n	unacc		hueliher	102.17		pron. adj.	nom. sg.	masc.	ēr-ending	1	VII
e	n	unacc	ke	skejdaner	103.04		part. pret.	nom. sg.	masc.	ēr-ending	1	VII
e	n	unacc	ke	qhuuetaner	103.10		part. pret.	nom. sg.	masc.	ēr-ending	1	VII
e	n	unacc	er	palden	103.13		infinitive			ē-verb	1	VII
e	n	unacc		suuarrem	104.03		adj.	dat. pl.	fem.	ēm-ending	3	VII
e	n	unacc	foraki	strahter	104.07		part. pret.	nom. sg.	masc.	ēr-ending	3	VII
e	n	unacc	ke	strahter	104.09		part. pret.	nom. sg.	masc.	ēr-ending	3	VII
e	n	unacc	ka	potaner	104.13		part. pret.	nom. sg.	masc.	ēr-ending	3	VII
e	y	unacc	er	paldee	105.02	*	verb	3rd sg. pres.	opt.	ē-verb opt.	3	VII
e	y	unacc	ka	stillee	105.07		verb	3rd sg. pres.	opt.	ē-verb opt.	3	VII
e	n	unacc	duruh	tuen	105.12		verb	3rd pl. pres.	opt.	opt.	3	VII
e	n	unacc		liukanter	105.17		part. pres.	nom. sg.	masc.	ēr-ending	3	VII
e	n	unacc	ka	theonoter	105.18		part. pret.	nom. sg.	masc.	ēr-ending	3	VII
e	n	unacc	ke	rafster	106.02		part. pret.	nom. sg.	masc.	ēr-ending	3	VII
e	n	unacc		meldet	106.18		verb	3rd sg. pres.	ind.	ē-verb	3	VII
e	n	unacc		atumlihchem	107.04		adj.	dat. pl.	masc.	ēm-ending	3	VII

e	n	unacc	ka	limfantem	107.13		part. pres.	dat. pl.	fem.	ēm-ending	3	VII
e	n	unacc	in	kinnen	107.16		verb	3rd pl. pres.	opt.	opt.	3	VII
e	n	unacc	ka	uuissem	108.06		adj.	dat. pl.	fem.	ēm-ending	3	VII
e	n	unacc	ka	laubames	108.09		verb	1st pl. pres.	ind.	mes-ending	3	VII
e	n	unacc		resten	108.16		verb	3rd pl. pres.	opt.	opt.	3	VII
e	n	unacc	in	mahchoen	110.01		verb	3rd pl. pres.	opt.	opt.	3	VII
e	n	unacc	far	lazzanem	110.04		part. pret.	dat. pl.	neut.	ēm-ending	3	VII
e	n	unacc		allem	110.05		adj.	dat. pl.	neut.	ēm-ending	3	VII
e	n	unacc		uuelihem	110.05		pron. adj.	dat. pl.	neut.	ēm-ending	3	VII
e	n	unacc	int	fahen	110.13		verb	3rd pl. pres.	opt.	opt.	3	VII
e	n	unacc		einer	110.17		num.	nom. sg.	masc.	ēr-ending	3	VII
e	n	unacc		sehen	111.02		verb	3rd pl. pres.	opt.	opt.	3	VIII
e	n	unacc		slaffer	111.03		adj.	nom. sg.	masc.	ēr-ending	3	VIII
e	n	unacc	ana	uuartenter	111.04		part. pres.	nom. sg.	masc.	ēr-ending	3	VIII
e	n	unacc	ana	uuartenter	111.04		part. pres.	nom. sg.	masc.	ē-verb	3	VIII
e	n	unacc		umbiderber	111.06		adj.	nom. sg.	masc.	ēr-ending	3	VIII
e	n	unacc		solihcher	111.06		pron. adj.	nom. sg.	masc.	ēr-ending	3	VIII
e	n	unacc		fundaner	111.07		pp	nom. sg.	masc.	ēr-ending	3	VIII
e	n	unacc		furjhten	111.10		verb	3rd pl. pres.	opt.	opt.	3	VIII
e	n	unacc	unka	limfantem	111.12		adj.	dat. pl.	fem.	ēm-ending	3	VIII
e	n	unacc		missalihchem	111.14		adj.	dat. pl.	neut.	ēm-ending	3	VIII
e	n	unacc		unstiller	111.15		adj.	nom. sg.	masc.	ēr-ending	3	VIII
e	n	unacc		lirnen	111.17		verb	infinitive		ē-verb	3	VIII
e	n	unacc	un	mahtiken	112.01	*	adj.	dat. pl.	masc.	ēm-ending	3	VIII
e	n	unacc		smecharem	112.02		adj.	dat. pl.	masc.	ēm-ending	3	VIII

e	n	unacc		haben	112.10		verb	infinitive		ẽ-verb	3	VIII
e	n	unacc		spanames	112.11		verb	1st pl. pres.	ind.	mes-ending	3	VIII
e	n	unacc		desem	112.12		pron.	dat. pl.	masc.	ẽm-ending	3	VIII
e	n	unacc		desem	112.15		pron.	dat. pl.	masc.	ẽm-ending	3	VIII
e	n	unacc		<b>allem</b>	112.16		adj.	dat. pl.	fem.	ẽm-ending	3	VIII
e	n	unacc		desem	113.02		pron.	dat. pl.	masc.	ẽm-ending	3	VIII
e	n	unacc		kebames	113.02		verb	1st pl. pres.	ind.	mes-ending	3	VIII
e	n	unacc		auhchomes	113.02		verb	1st pl. pres.	ind. or opt.	mes-ending	3	VIII
e	n	unacc		<b>einer</b>	113.06		num.	nom. sg.	masc.	ẽr-ending	3	VIII
e	n	unacc		eocouuelicher	113.06		pron. adj.	nom. sg.	masc.	ẽr-ending	3	VIII
e	n	unacc		einer	113.14		num.	nom. sg.	masc.	ẽr-ending	3	VIII
e	n	unacc		ecouuelicher	113.14		pron. adj.	nom. sg.	masc.	ẽr-ending	3	VIII
e	y	unacc		sakee	113.15		verb	3rd sg. pres.	opt.	ẽ-verb opt.	3	VIII
e	n	unacc	un	chundem	118.01		adj.	dat. pl.	fem.	ẽm-ending	3	VIII
e	n	unacc	ki	unstillen	118.03		verb	3rd pl. pres.	opt.	opt.	3	VIII
e	n	unacc		horsamoen	118.14		verb	3rd pl. pres.	opt.	opt.	3	VIII
e	n	unacc	ka	peotantem	118.15		part. pres.	dat. pl.	masc.	ẽm-ending	3	VIII
e	n	unacc		habet	118.17		verb	3rd sg. pres.	ind.	ẽ-verb	3	VIII
e	n	unacc		chvatumes	119.06		verb	1st pl. pres.	ind.	mes-ending	3	VIII
e	n	unacc		chalttem	120.13		adj.	dat. pl.	fem.	ẽm-ending	3	VIII
e	n	unacc		vvaramem	120.15		adj.	dat. pl.	fem.	ẽm-ending	3	VIII
e	n	unacc	ana	leckentem	121.11		part. pres.	dat. pl.	masc.	ẽm-ending	3	VIII
e	n	unacc	int	fahen	122.04		verb	3rd pl. pres.	opt.	opt.	3	VIII
e	n	unacc		deser	124.09		pron.	nom. sg.	masc.	ẽr-ending	3	VIII
e	n	unacc		solihcher	124.09		pron. adj.	nom. sg.	masc.	ẽr-ending	3	VIII

e	n	unacc	far	doleton	125.01		verb	3rd pl. pret.	ind.	ē-verb	3	VIII
e	n	unacc	ke	dolet	125.03		part. pret.			ē-verb	3	VIII
e	n	unacc		uuerultihchem	125.07		adj.	dat. pl.	uncertain	ēm-ending	3	VIII
e	n	unacc		samfter	125.10		adj.	nom. sg.	masc.	ēr-ending	3	VIII
e	n	unacc		fouuem	126.01	*	adj.	dat. pl.	masc	ēm-ending	3	VIII
e	y	unacc		lirnee	126.03		verb	3rd sg. pres.	opt.	ē-verb opt.	3	VIII
e	n	unacc	ki	mahcher	126.05		adj.	nom. sg.	masc.	ēr-ending	3	VIII
e	n	unacc	pi	huctiger	126.07		adj.	nom. sg.	masc.	ēr-ending	3	VIII
e	y	unacc	ana	vvartee	126.07		verb	3rd sg. pres.	opt.	ē-verb opt.	3	VIII
e	n	unacc		frier	126.17		adj.	nom. sg.	masc.	ēr-ending	3	VIII
e	n	unacc	int	fankaner	127.18		part. pret.	nom. sg.	masc.	ēr-ending	3	IX
e	n	unacc		vvihem	128.04		adj.	dat. pl.	uncertain	ēm-ending	3	IX
e	n	unacc	ka	petataner	128.12	*	pp	nom. sg.	masc.	ēr-ending	3	IX
e	n	unacc		nivvichuemaner	129.04	*	adj.	nom. sg.	masc.	ēr-ending	3	IX
e	n	unacc		allem	129.11		adj.	dat. pl.	neut.	ēm-ending	3	IX
e	n	unacc		eijkenem	129.14		pron. adj.	dat. pl.	unclear	ēm-ending	3	IX
e	n	unacc	ke	uuaototer	129.14		part. pret.	nom. sg.	masc.	ēr-ending	3	IX
e	n	unacc	int	vvatoter	129.16		part. pret.	nom. sg.	masc.	ēr-ending	3	IX
e	n	unacc	ent	vvatote <sup>r</sup>	130.03		part. pret.	nom. sg.	masc.	ēr-ending	3	IX
e	n	unacc		adelem	130.10		adj.	dat. pl.	masc.	ēm-ending	3	IX
e	n	unacc		habenne	131.05		verb	infinitive	dat	ē-verb	3	IX
e	n	unacc	pi	svvichaner	131.15		part. pret.	nom. sg.	masc.	ēr-ending	3	IX
e	n	unacc		lirnetomes	131.17		verb	1st pl. pret.	ind.	ē-verb	3	IX
e	n	unacc		lirnetomes	131.17		verb	1st pl. pret.	ind.	mes-ending	3	IX
e	n	unacc		haben	132.15		verb	infinitive		ē-verb	3	IX

e	y	unacc	er	baldee	132.17		verb		3rd sg. pres.	opt.	ẽ-verb opt.	3	IX
e	n	unacc	inga	ganganer	133.04		pp		nom. sg.	masc.	ẽr-ending	3	IX
e	y	unacc	zva	vvartee	133.04		verb		3rd sg. pres.	opt.	ẽ-verb opt.	3	IX
e	n	unacc		rumen	133.15	*	adj.		dat. pl.	fem.	ẽm-ending	3	IX
e	y	unacc		trahtohee	134.07		verb		3rd sg. pres.	opt.	ẽ-verb opt.	3	IX
e	n	unacc	ubar	fleoanzer	134.13		part. pres.		nom. sg.	masc.	ẽr-ending	3	IX
e	n	unacc		achvstiger	134.14		adj.		nom. sg.	masc.	ẽr-ending	3	IX
e	n	unacc		fvtaner	134.14		pp		nom. sg.	masc.	ẽr-ending	3	IX
e	n	unacc		kiamet	135.02		part. pret.				ẽ-verb	3	IX
e	n	unacc	ka	scribanem	135.11		part. pret.		dat. pl.	masc.	ẽm-ending	3	IX
e	y	unacc	pi	porgee	135.16		verb		3rd sg. pres.	opt.	ẽ-verb opt.	3	IX
e	n	unacc		sinem	136.07		poss. pron.		dat. pl.	unclear	ẽm-ending	3	IX
e	n	unacc		vvirdiger	136.08		adj.		nom. sg.	masc.	ẽr-ending	3	IX
e	n	unacc	ki	sazter	136.09		part. pret.		nom. sg.	masc.	ẽr-ending	3	IX
e	y	unacc	pi	porkee	136.09		verb		3rd sg. pres.	opt.	ẽ-verb opt.	3	IX
e	n	unacc	inka	gankaner	137.01		part. pret.		nom. sg.	masc.	ẽr-ending	3	IX
e	y	unacc	zva	vvartee	137.01		verb		3rd sg. pres.	opt.	ẽ-verb opt.	3	IX
e	n	unacc	foraki	saztem	137.07		part. pret.		dat. pl.	masc.	ẽm-ending	3	IX
e	n	unacc	er	paldet	137.09		verb		3rd sg. pres.	ind.	ẽ-verb	3	IX
e	n	unacc	zvaki	manoter	137.10		part. pret.		nom. sg.	masc.	ẽr-ending	3	IX
e	n	unacc		skinentem	137.13		part. pres.		dat. pl.	fem.	ẽm-ending	3	IX
e	n	unacc	ke	halten	138.01		verb		3rd pl. pres.	opt.	opt.	1	IX
e	n	unacc	er	kebanter	138.09		part. pres.		nom. sg.	masc.	ẽr-ending	1	IX
e	n	unacc	zua	kangen	138.12		verb		3rd pl. pres.	opt.	opt.	1	IX
e	n	unacc		allem	138.14		adj.		dat. pl.	fem.	ẽm-ending	1	IX



e	n	unacc	ki	uuissem	139.02	adj.	dat. pl.	fem.	ēm-ending	1	IX
e	n	unacc		nemmen	139.17	verb	3rd pl. pres.	opt.	opt.	1	IX
e	n	unacc		vvirdiger	140.05	adj.	nom. sg.	masc.	ēr-ending	1	IX
e	n	unacc		siner	140.11	pron.	nom. sg.	masc.	ēr-ending	1	IX
e	n	unacc	ke	halten	140.15	verb	3rd pl. pres.	opt.	opt.	1	IX
e	n	unacc	pi	qhuuemen	141.01	verb	3rd pl. pres.	opt.	opt.	1	IX
e	n	unacc		sinem	141.13	poss. pron.	dat. pl.	fem.	ēm-ending	1	IX
e	n	unacc	pi	uuerjgem	142.01	verb	3rd pl. pres.	opt.	opt.	1	IX
e	n	unacc	ke	sazter	142.07	part. pret.	nom. sg.	masc.	ēr-ending	1	IX
e	n	unacc	er	kebanter	142.08	part. pres.	nom. sg.	masc.	ēr-ending	1	IX
e	n	unacc		sorchafter	143.04	adj.	nom. sg.	masc.	ēr-ending	1	X
e	y	unacc		zilee	143.10	verb	3rd sg. pres.	opt.	ē-verb opt.	1	X
e	n	unacc		truabaler	143.12	adj.	nom. sg.	masc.	ēr-ending	1	X
e	n	unacc		angustonter	143.12	part. pres.	nom. sg.	masc.	ēr-ending	1	X
e	n	unacc		ejnsneller	143.13	adj.	nom. sg.	masc.	ēr-ending	1	X
e	n	unacc		ejnstrjter	143.13	adj.	nom. sg.	masc.	ēr-ending	1	X
e	n	unacc		dratter	143.13	pron. adj.	nom. sg.	masc.	ēr-ending	1	X
e	n	unacc		vrtjjuuer	143.14	adj.	nom. sg.	masc.	ēr-ending	1	X
e	n	unacc		skauuonter	143.16	part. pres.	nom. sg.	masc.	ēr-ending	1	X
e	n	unacc	foraki	sehaner	143.16	part. pret.	nom. sg.	masc.	ēr-ending	1	X
e	y	unacc	ke	mezljhhee	143.18	verb	3rd sg. pres.	opt.	ē-verb opt.	1	X
e	y	unacc	ke	mezljhhee	144.07	verb	3rd sg. pres.	opt.	ē-verb opt.	1	X
e	n	unacc	er	fleoehen	144.08	verb	3rd pl. pres.	opt.	opt.	1	X
e	n	unacc	furiki	sazter	145.10	part. pret.	nom. sg.	masc.	ēr-ending	1	X
e	n	unacc	ke	sazter	146.01	part. pret.	nom. sg.	masc.	ēr-ending	1	X

e	n	unacc		soljhhem	146.08		pron. adj.	dat. pl.	uncertain	ēm-ending	1	X
e	n	unacc	foraki	suannemes	146.10		verb	1st pl. pres.	ind.	mes-ending	1	X
e	n	unacc		hangen	146.13		verb	infinitive		ē-verb	1	X
e	n	unacc	ki	saztomes	146.17		verb	1st pl. pret.	ind.	mes-ending	1	X
e	n	unacc		managem	147.01		pron. adj.	dat. pl.	masc.	ēm-ending	1	X
e	n	unacc	foraki	prejtter	147.13		pp	nom. sg.	masc.	ēr-ending	1	X
e	n	unacc	ke	choroter	148.01		part. pret.	nom. sg.	masc.	ēr-ending	1	X
e	n	unacc		stiller	148.08		adj.	nom. sg.	masc.	ēr-ending	1	X
e	n	unacc	pi	felahen	150.07		verb	3rd pl. pres.	opt.	opt.	1	X
i	y	unacc		horsamii	8.03		noun	gen. sg.	fem.	ī-fem	1	I
i	n	unacc		trvhtinan	8.06		noun	acc. sg.	masc.	īn-suffix	1	I
i	n	unacc		eocouueljhera	8.07		pron. adj.	gen. sg.	fem.	īh-suffix	1	I
i	n	unacc		euuikemv	8.10		adj.	dat. sg.	masc.	īg-suffix	1	I
i	n	unacc		euuin	8.14	*	noun	acc. sg.	fem.	īn-suffix	1	I
i	n	unacc		deonosti	8.17		noun	gen. sg.	fem.	ī-fem	1	I
i	n	unacc		truhtjnlilhun	8.17		adj.	gen. sg.	fem.	īn-suffix	1	I
i	n	unacc		truhtjnlilhun	8.17		adj.	gen. sg.	fem.	īh-suffix	1	I
i	y	unacc		hejlji	9.08		noun	gen. sg.	fem.	ī-fem	1	I
i	n	unacc		svazzi	9.11		noun	gen. sg.	fem.	ī-fem	1	I
i	n	unacc	uner	rahhotlihera	9.11		adj.	gen. sg.	fem.	īh-suffix	1	I
i	y	unacc		antretjji	10.04		noun	nom. sg.	fem.	ī-fem	1	I
i	n	unacc		euuin	10.12	*	noun	acc. sg.	fem.	īn-suffix	1	I
i	n	unacc		cernliho	10.16		adv.			īh-suffix	1	I
i	n	unacc		huuasliho	10.17		adv.			īh-suffix	1	I

i	y	unacc		horsamii	10.18	noun	gen. sg.	fem.	ī-fem	1	I
i	y	unacc		slaffii	11.01	noun	acc. sg.	fem.	ī-fem	1	I
i	y	unacc	un	horsamii	11.01	adj.	gen. sg.	fem.	ī-fem	1	I
i	n	unacc		truhtine	11.05	noun	dat. sg.	masc.	īn-suffix	1	I
i	y	unacc		horsamii	11.06	noun	gen. sg.	fem.	ī-fem	1	I
i	n	unacc	ana	stantantlihostin	11.10	adj.	dat. sg.	neut.	līh-suffix	1	I
i	n	unacc		eocouueljheru	11.15	pron. adj.	dat. sg.	fem.	līh-suffix	1	I
i	n	unacc		<b>truhtjn</b>	12.02	* noun	nom. sg.	masc.	īn-suffix	1	I
i	n	unacc		euuic	12.03	* adj.	nom. sg.	neut.	īg-suffix	1	I
i	n	unacc		tagaljhin	12.11	adv.			līh-suffix	1	I
i	y	unacc	ni	chvriit	12.13	verb	2nd pl. pret.	opt.	pret. opt.	1	I
i	n	unacc		truhtjnes	12.18	noun	gen. sg.	masc.	īn-suffix	1	I
i	y	unacc		finstrii	13.01	noun	nom. sg.	fem.	ī-fem	1	I
i	y	unacc	ni	ejgiit	13.01	verb	2nd pl. pres	opt.	pret. opt.	1	I
i	y	unacc		managii	13.03	noun	dat. sg.	fem.	ī-fem	1	I
i	n	unacc		truhtjn	13.03	noun	nom. sg.	masc.	īn-suffix	1	I
i	n	unacc		euuigan	13.09	adj.	acc. sg.	masc.	īg-suffix	1	I
i	n	unacc		truhtjnes	13.18	noun	gen. sg.	masc.	īn-suffix	1	I
i	n	unacc		<b>truhtjn</b>	14.02	noun	nom. sg.	masc.	īn-suffix	1	I
i	n	unacc		truhtjnan	14.12	noun	acc. sg.	masc.	īn-suffix	1	I
i	n	unacc		<b>truhtjn</b>	14.12	noun	nom. sg.	masc.	īn-suffix	1	I
i	n	unacc		truhtjnan	14.16	noun	acc. sg.	masc.	īn-suffix	1	I
i	n	unacc		vvarhaffi	15.01	noun	acc. sg.	fem.	ī-fem	1	II

i	n	unacc		itvviz	15.04	noun	acc. sg.	masc.	compound	1	II
i	n	unacc		eddesvveljhha	15.05	pron. adj.	acc. sg.	fem.	lĭh-suffix	1	II
i	n	unacc		truhtjnan	15.10	noun	acc. sg.	masc.	ĭn-suffix	1	II
i	n	unacc		truhtjne	15.12	noun	dat. sg.	masc.	ĭn-suffix	1	II
i	n	unacc		truhťinan	15.13	noun	acc. sg.	masc.	ĭn-suffix	1	II
i	n	unacc		truhtjn	15.15	noun	nom. sg.	masc.	ĭn-suffix	1	II
i	y	unacc		digji	15.17	noun	dat. sg.	fem.	ĭ-fem	1	II
i	n	unacc		truhtjne	16.02	noun	dat. sg.	masc.	ĭn-suffix	1	II
i	n	unacc		cuatlihteet	16.02	verb	3rd sg. pres.	ind.	lĭh-suffix	1	II
i	n	unacc		cuatlihee	16.02	verb	3rd sg. pres.	opt.	lĭh-suffix	1	II
i	n	unacc		truhtjn	16.03	noun	nom. sg.	masc.	ĭn-suffix	1	II
i	n	unacc		truhtjn	16.10	noun	nom. sg.	masc.	ĭn-suffix	1	II
i	n	unacc		tagaljhĭn	16.11	adv.			lĭh-suffix	1	II
i	n	unacc		suntjĭn	16.18	noun	gen. sg.	masc.	ĭg-suffix	1	II
i	n	unacc		munistrlĭh	17.10	* adj.	nom. sg.	neut.	lĭh-suffix	1	II
i	n	unacc		vvaldlĭhero	17.13	adj.	gen. pl.	masc.	lĭh-suffix	1	II
i	y	unacc		niuvvii	17.15	noun	gen. sg.	fem.	ĭ-fem	1	II
i	n	unacc		pruaderlihera	17.18	noun	dat. sg.	fem.	lĭh-suffix	1	II
i	n	unacc		ejnluzliheru	18.01	adj.	dat. sg.	fem.	lĭh-suffix	1	II
i	n	unacc		truhtjnlĭhem	18.14	adj.	dat. pl.	masc.	ĭn-suffix	1	II
i	n	unacc		truhtjnlĭhem	18.14	adj.	dat. pl.	masc.	lĭh-suffix	1	II
i	n	unacc		missilĭhho	19.04	adj.	acc. pl.	fem.	lĭh-suffix	1	II
i	n	unacc		statĭge	19.07	adj.	nom. pl.	masc.	ĭg-suffix	1	II
i	n	unacc		vnerlaubantĭjheem	19.08	adj.	dat. pl.	neut.	lĭh-suffix	1	II

i	n	unacc		truhtjine	19.13	noun	dat. sg.	masc.	īn-suffix	1	II
i	n	unacc		vvirdiger	19.15	adj.	nom. sg.	masc.	īg-suffix	1	II
i	n	unacc		faterlih	20.04	noun/adj	nom. sg.	masc.	līh-suffix	1	II
i	n	unacc		truhtjnes	20.05	noun	gen. sg.	masc.	īn-suffix	1	II
i	n	unacc	ke	hucic	20.10	adj.	nom. sg.	neut.	īg-suffix	1	II
i	y	unacc		horsamii	20.11	noun	gen. sg.	fem.	ī-fem	1	II
i	y	unacc		piderbii	20.16	noun	gen. sg.	fem.	ī-fem	1	II
i	y	unacc		kernii	21.01	noun	nom. sg.	fem.	ī-fem	1	II
i	n	unacc		eocouuelih	21.01	pron. adj.	nom. sg.	fem.	līh-suffix	1	II
i	n	unacc		suhtigeem	21.02	adj.	dat. pl.	fem.	īg-suffix	1	II
i	n	unacc		truhtjnes	21.04	noun	gen. sg.	masc.	īn-suffix	1	II
i	n	unacc		vvarhaftj	21.06	noun	acc. sg.	fem.	ī-fem	1	II
i	y	unacc		hejlantii	21.07	noun	acc. sg.	fem.	ī-fem	1	II
i	n	unacc		eddesuueliher	21.11	pron. adj.	nom. sg.	masc.	līh-suffix	1	II
i	n	unacc		truhtjnes	21.16	noun	gen. sg.	masc.	īn-suffix	1	II
i	n	unacc		ejnfaltlihero	21.17	* adj.	dat. pl.	masc.	līh-suffix	1	II
i	y	unacc		egii	22.08	noun	acc. sg.	fem.	ī-fem	1	II
i	y	unacc		horsamii	22.15	noun	dat. sg.	fem.	ī-fem	1	II
i	n	unacc		deonosti	22.16	noun	dat. sg.	fem.	ī-fem	1	II
i	n	unacc		uuelihes	23.01	pron. adj.	gen. sg.	masc.	līh-suffix	1	II
i	n	unacc		eigin	23.03	* verb	3rd pl. pres.	opt.	pret. opt.	1	II
i	n	unacc		ebanlihho	23.05	adv.			līh-suffix	1	II
i	y	unacc		ekii	23.13	noun	gen. sg.	fem.	ī-fem	1	II
i	n	unacc		potoljha	23.15	adj.	acc. sg.	neut.	līh-suffix	1	II

i	y	unacc		crjmmii	24.03		noun	acc. sg.	fem.		ī-fem	1	II
i	y	unacc		erhaftii	24.03		noun	acc. sg.	fem.		ī-fem	1	II
i	n	unacc		dultigeem	24.07		adj.	dat. pl.	masc.		īg-suffix	1	II
i	n	unacc		eervvirdigoron	24.15		noun	acc. pl.	masc.		īg-suffix	1	II
i	n	unacc	far	stantantlihhe	24.17		adj.	acc. pl.	masc.		līh-suffix	1	II
i	n	unacc		uuidarpirkiga	25.12		adj.	acc. sg.	fem.		īg-suffix	1	II
i	n	unacc		ejnlihan	25.14	*	pron. adj.	acc. sg.	masc.		līh-suffix	1	II
i	n	unacc		ejnlihan	25.15		pron. adj.	acc. sg.	masc.		līh-suffix	1	II
i	y	unacc		huuialjhii	25.17		noun	dat. sg.	fem.		ī-fem	1	II
i	n	unacc		huuialjhii	25.17		noun	dat. sg.	fem.		līh-suffix	1	II
i	n	unacc		eocouueljhhes	25.17		pron. adj.	gen. sg.	masc.		līh-suffix	1	II
i	y	unacc		hejlji	26.05		noun	acc. sg.	fem.		ī-fem	1	II
i	n	unacc		erdljheem	26.08		adj.	dat. pl.	fem.		līh-suffix	1	II
i	n	unacc	ze	farantljheem	26.08		adj.	dat. pl.	fem.		līh-suffix	1	II
i	n	unacc		odhuuila	26.12		adv.				compound	1	II
i	n	unacc	pi	huctigeer	27.09		adj.	nom. sg.	masc.		īg-suffix	1	II
i	n	unacc		eddesljhiu	27.14		pron. adj.	nom. pl.	neut.		līh-suffix	1	II
i	n	unacc		eocouueliheru	27.16		pron. adj.	dat. sg.	fem.		līh-suffix	1	II
i	n	unacc		<b>truhtjn</b>	28.03		noun	nom. sg.	masc.		īn-suffix	1	II
i	y	unacc	vntar	uuorfanii	28.05		noun	dat. sg.	fem.		ī-fem	1	II
i	n	unacc		eocouueljhhera	28.05		pron. adj.	gen. sg.	fem.		līh-suffix	1	II
i	n	unacc		vveljhho	28.06		pron. adj.				līh-suffix	1	II
i	n	unacc		hejljijhoor	28.09		adj.	nom. sg.	neut.		līh-suffix	1	II
i	n	unacc	forake	sehantliho	28.12		adv.				līh-suffix	1	II
i	n	unacc		ejnigeru	28.16	*	adj.	dat. sg.	masc.		īg-suffix	1	II



i	n	unacc		truhtjnlhha	32.18		adj.	acc. sg.		neut.	īn-suffix	1	III
i	n	unacc		truhtjnlhha	32.18		adj.	acc. sg.		neut.	līh-suffix	1	III
i	n	unacc	ni	churit	33.02		verb	2nd pl. pret.		opt.	pret. opt.	1	III
i	n	unacc		vvarljhor	33.04		adv.				līh-suffix	1	III
i	n	unacc		tagaljhīn	33.05		adv.				līh-suffix	1	III
i	n	unacc		atumlīhvn	33.14		adj.	gen. sg.		fem.	līh-suffix	1	III
i	n	unacc		vnbiļjnnamljhaz	33.16		adv.				līh-suffix	1	III
i	y	unacc		hreīnii	33.19		noun	acc. sg.		fem.	ī-fem	1	III
i	n	unacc		kernliho	34.06		adv.				līh-suffix	1	III
i	y	unacc		statigii	34.07		noun	nom. sg.		fem.	ī-fem	1	III
i	n	unacc		statigii	34.07		noun	nom. sg.		fem.	īg-suffix	1	III
i	y	unacc		horsamii	34.08		noun	dat. sg.		fem.	ī-fem	1	III
i	y	unacc		hoorsamii	34.10		noun	nom. sg.		fem.	ī-fem	1	III
i	n	unacc		euuigin	34.15		adj.	gen. sg.		masc.	īg-suffix	1	III
i	n	unacc		cotchundlijho	34.17		adv.				līh-suffix	1	III
i	n	unacc	ni	uuizzin	34.18	*	verb	3rd pl. pres.		opt.	pret. opt.	1	III
i	n	unacc		truhtjn	35.01		noun	nom. sg.		masc.	īn-suffix	1	III
i	n	unacc		soljhhe	35.04		pron. adj.	nom. pl.		masc.	līh-suffix	1	III
i	y	unacc		hoorsamii	35.08		noun	gen. sg.		fem.	ī-fem	1	III
i	n	unacc		stunthuulu	35.10		noun	dat. sg.		fem.	compound	1	III
i	n	unacc		euuigemv	35.14		adj.	dat. sg.		masc.	īg-suffix	1	III
i	n	unacc		<b>truhtjn</b>	35.17		noun	nom. sg.		masc.	īn-suffix	1	III
i	n	unacc		solihhe	36.04		pron. adj.	nom. pl.		masc.	līh-suffix	1	III
i	y	unacc		hoorsamii	36.08		noun	nom. sg.		fem.	ī-fem	1	III



i	n	unacc		antfanc1jh	36.08		adj.	unclear			l1h-suffix	1	III
i	y	unacc		hoorsamii	36.12		noun	nom. sg.	fem.		1-fem	1	III
i	n	unacc		antfangigaz	37.03		adj.	nom. sg.	neut.		1g-suffix	1	III
i	n	unacc		solihheru	37.05		pron. adj.	dat. sg.	fem.		l1h-suffix	1	III
i	y	unacc		suuigalji	37.15		noun	acc. sg.	fem.		1-fem	1	III
i	y	unacc		fruatji	38.02		noun	acc. sg.	fem.		1-fem	1	III
i	y	unacc		suuigilji	38.02		noun	gen. sg.	fem.		1-fem	1	III
i	y	unacc		vrlaubii	38.03		noun	nom. sg.	fem.		1-fem	1	III
i	n	unacc		huuelihhiv	38.09		pron. adj.				l1h-suffix	1	III
i	y	unacc		eruuirdii	38.10		noun	dat. sg.	fem.		1-fem	1	III
i	n	unacc		vppigiv	38.12		adj.	acc. pl.	neut.		1g-suffix	1	III
i	n	unacc		euuigiv	38.13		adj.	acc. pl.	neut.		1g-suffix	1	III
i	n	unacc		soljheru	38.14		pron. adj.	dat. sg.	fem.		l1h-suffix	1	III
i	n	unacc		eocouueljh	38.18		pron. adj.	nom. sg.	masc.		l1h-suffix	1	III
i	y	unacc	er	habanii	39.03		noun	acc. sg.	fem.		1-fem	1	III
i	n	unacc		eocouueljhha	39.03		pron. adj.	acc. sg.	fem.		l1h-suffix	1	III
i	y	unacc		ubarmuatji	39.04		noun	gen. sg.	fem.		1-fem	1	III
i	n	unacc		<b>truhtjn</b>	39.05		noun	nom. sg.	masc.		1n-suffix	1	III
i	y	unacc		mihhili	39.07		noun	nom. sg.	fem.		1-fem	1	III
i	y	unacc		obonoontikii	39.13		noun	acc. sg.	fem.		1-fem	1	III
i	n	unacc		obonoontikii	39.13		noun	acc. sg.	fem.		1g-suffix	1	III
i	y	unacc	er	habanii	39.14		noun	dat. sg.	fem.		1-fem	1	III
i	n	unacc		nidarstic	40.04		noun	nom. sg.	masc.		compound	1	III
i	n	unacc		vfstic	40.04		noun	nom. sg.	masc.		compound	1	III

i	y	unacc	er	habanii	40.05	noun	dat. sg.	fem.	ī-fem	1	III
i	n	unacc		missilihhe	40.12	adj.	acc. pl.	masc.	līh-suffix	1	III
i	y	unacc		ekii	40.13	noun	gen. sg.	fem.	ī-fem	1	III
i	y	unacc		akezzalii	40.17	noun	acc. sg.	fem.	ī-fem	1	III
i	n	unacc	ke	huctic	40.18	adj.	nom. sg.	neut.	īg-suffix	1	III
i	n	unacc		euuigan	41.04	adj.	acc. sg.	masc.	īg-suffix	1	III
i	n	unacc		eocouueljhera	41.06	pron. adj.	dat. sg.	fem.	līh-suffix	1	III
i	y	unacc		ejkinii	41.09	noun	gen. sg.	fem.	ī-fem	1	III
i	n	unacc		eocohueljhhera	41.12	pron. adj.	dat. sg.	fem.	līh-suffix	1	III
i	n	unacc		eocovvelihheru	41.12	pron. adj.	dat. sg.	fem.	līh-suffix	1	III
i	n	unacc	ki	sihtj	41.13	noun	dat. sg.	fem.	ī-fem	1	III
i	y	unacc		cotchundii	41.13	noun	gen. sg.	fem.	ī-fem	1	III
i	n	unacc		eocouueljhera	41.14	pron. adj.	dat. sg.	fem.	līh-suffix	1	III
i	n	unacc		lentj	41.18	noun	acc. pl.	fem.	ī-fem	1	III
i	n	unacc		truhtjn	42.01	noun	nom. sg.	masc.	īn-suffix	1	III
i	n	unacc	pi	huctigeer	42.05	adj.	nom. sg.	masc.	īg-suffix	1	III
i	n	unacc		truhtjne	43.08	noun	dat. sg.	masc.	īn-suffix	1	III
i	n	unacc		eocouuelih	43.09	pron. adj.	nom. sg.	fem.	līh-suffix	1	III
i	n	unacc		truhtjnes	43.14	noun	gen. sg.	masc.	īn-suffix	1	III
i	n	unacc		tagalihhin	44.01	adv.			līh-suffix	1	III
i	n	unacc		eocouueljhera	44.04	pron. adj.	dat. sg.	fem.	līh-suffix	1	III
i	n	unacc		eddeshuuelihhera	44.06	pron. adj.	dat. sg.	fem.	līh-suffix	1	III
i	n	unacc		tagalihhin	44.09	adv.			līh-suffix	1	III
i	n	unacc		deomuataj	44.12	noun	gen. sg.	fem.	ī-fem	1	III

i	n	unacc		huueļjh	44.13		pron. adj.	nom. sg.	masc.	līh-suffix	1	III
i	n	unacc		eocouuelihhera	45.04		pron. adj.	dat. sg.	fem.	līh-suffix	1	III
i	n	unacc		huueļih	45.04		pron. adj.	nom. sg.	masc.	līh-suffix	1	III
i	y	unacc		hoorsamii	45.05		noun	dat. sg.	fem.	ī-fem	1	III
i	y	unacc		hoorsamii	45.09		noun	dat. sg.	fem.	ī-fem	1	III
i	n	unacc	jn	hucťj	45.12		noun	dat. sg.	fem.	ī-fem	1	III
i	n	unacc	ke	laubigan	45.17		adj.	acc. sg.	masc.	īg-suffix	1	III
i	n	unacc		tagaljhhin	46.03		adv.			līh-suffix	1	III
i	n	unacc		cotchundi	46.05		noun	gen. sg.	fem.	ī-fem	1	III
i	n	unacc		uuidarmuatim	46.17		noun	dat. pl.	fem.	ī-fem	1	III
i	n	unacc		deomuatiłiha	47.09		adj.	acc. sg.	fem.	līh-suffix	1	IV
i	n	unacc		truhtjne	47.13		noun	dat. sg.	masc.	īn-suffix	1	IV
i	n	unacc		uzorosti	48.03		noun	dat. sg.	fem.	ī-fem	2	IV
i	y	unacc		smahliłhii	48.03		noun	dat. sg.	fem.	ī-fem	2	IV
i	n	unacc		smahliłhii	48.03		noun	dat. sg.	fem.	līh-suffix	2	IV
i	n	unacc		eocouueliheru	48.03		pron. adj.	dat. sg.	fem.	līh-suffix	2	IV
i	n	unacc		unuuirdigan	48.06		adj.	acc. sg.	masc.	īg-suffix	2	IV
i	n	unacc		smahliłhorun	48.11		adj.	acc. sg.	masc.	līh-suffix	2	IV
i	n	unacc		ituuiż	48.16		noun	nom. sg.	masc.	compound	2	IV
i	n	unacc		suuigalj	49.08		noun	acc. sg.	fem.	ī-fem	2	IV
i	n	unacc		filusprahhi	49.11		noun	dat. sg.	fem.	ī-fem	2	IV
i	n	unacc		fruatj	50.02		noun	dat. sg.	fem.	ī-fem	2	IV
i	n	unacc		theomuatiłiho	50.02		adv.			līh-suffix	2	IV
i	n	unacc		scultikan	50.15		adj.	acc. sg.	masc.	īg-suffix	2	IV

i	n	unacc		eocohuueljhhera	50.19		pron. adj.	dat. sg.	fem.	lĭh-suffix	1	IV
i	n	unacc		uuirdiker	51.02		adj.	nom. sg.	masc.	ĭg-suffix	2	IV
i	n	unacc		suntigo	51.02		noun	nom. sg.	masc.	ĭg-suffix	2	IV
i	n	unacc		ejnikeru	51.11		adj.	dat. sg.	fem.	ĭg-suffix	2	IV
i	n	unacc		chnuatlicho	51.12		adv.			lĭh-suffix	2	IV
i	n	unacc		<b>truhtin</b>	51.15		noun	nom. sg.	masc.	ĭn-suffix	2	IV
i	n	unacc		vvintarciti	52.01		noun	dat. sg.	fem.	compound	3	IV
i	n	unacc		mittilodi	52.05		noun	dat. sg.	fem.	ĭ-fem	2	IV
i	n	unacc		duruftigont	52.09		verb	3rd pl. pres.	ind.	ĭg-suffix	3	IV
i	n	unacc		eruuiridi	54.03		noun	dat. sg.	fem.	ĭ-fem	3	IV
i	n	unacc		rehtculichontem	54.08	*	adj.	dat. pl.	masc.	lĭh-suffix	3	IV
i	n	unacc	ki	huctliho	54.13		adv.			lĭh-suffix	3	IV
i	n	unacc		deolihās	54.14		adj.	nom. sg.	neut.	lĭh-suffix	3	IV
i	n	unacc		truhtin	54.15		noun	nom. sg.	masc.	ĭn-suffix	3	IV
i	n	unacc		eocouuelih	55.02		pron. adj.	nom. sg.	fem.	lĭh-suffix	3	IV
i	n	unacc		<b>huueamihij</b>	55.03		noun	nom. sg.	fem.	ĭ-fem	3	IV
i	n	unacc		skemmi	55.05		noun	acc. sg.	fem.	ĭ-fem	3	IV
i	n	unacc	ki	hucti	55.08		noun	gen. sg.	fem.	ĭ-fem	3	IV
i	n	unacc		<b>huueomichilj</b>	55.12		noun	dat. sg.	fem.	ĭ-fem	3	IV
i	n	unacc		truhtinlihem	55.16		adj.	dat. pl.	masc.	ĭn-suffix	3	IV
i	n	unacc		truhtinlihem	55.16		adj.	dat. pl.	masc.	lĭh-suffix	3	IV
i	n	unacc		eruurti	56.08		noun	dat. sg.	fem.	ĭ-fem	3	IV
i	n	unacc		uuihi	57.07		noun	dat. sg.	fem.	ĭ-fem	3	IV
i	n	unacc		eocouuelicheru	57.09		pron. adj.	dat. sg.	fem.	lĭh-suffix	3	IV

i	n	unacc		odouuila	57.11	adv.						compound	3	IV
i	n	unacc		uuirdigo	57.16	adv.						īg-suffix	3	IV
i	n	unacc		ruachalosi	57.17	noun			nom. sg.		fem.	ī-fem	3	IV
i	n	unacc		truhtinlichemv	58.01	adj.			dat. sg.		masc.	īn-suffix	3	IV
i	n	unacc		truhtinlichemv	58.01	adj.			dat. sg.		masc.	īh-suffix	3	IV
i	n	unacc	ki	rjhti	58.03	noun			dat. sg.		fem.	ī-fem	3	IV
i	y	unacc		uuihii	58.06	noun			nom. pl.		fem.	ī-fem	3	IV
i	n	unacc	ki	huctliho	58.08	adv.						īh-suffix	3	IV
i	n	unacc		suntrjgem	58.13	adj.			dat. pl.		masc.	īg-suffix	3	IV
i	n	unacc		luzic	58.16	adv.						īg-suffix	3	IV
i	n	unacc		truhtinlihun	58.16	noun			gen. sg.		fem.	īn-suffix	3	IV
i	n	unacc		truhtinlihun	58.16	noun			gen. sg.		fem.	īh-suffix	3	IV
i	n	unacc		ecouuelihhan	59.08	pron. adj.			acc. sg.		masc.	īh-suffix	3	IV
i	n	unacc	ki	hucticho	59.12	adv.						īh-suffix	3	IV
i	n	unacc		suslihcheru	60.06	adj.			dat. sg.		fem.	īh-suffix	3	IV
i	n	unacc		ejnluzlihe	62.17	adj.			nom. pl.		masc.	īh-suffix	3	IV
i	n	unacc	ki	rjhti	63.12	noun			dat. sg.		fem.	ī-fem	3	V
i	n	unacc		rjhti	64.04	noun			dat. sg.		fem.	ī-fem	3	V
i	n	unacc		uuhi	64.08	noun	*		nom.sg.		fem.	ī-fem	3	V
i	n	unacc		tagalihhin	64.10	adv.						īh-suffix	3	V
i	n	unacc		eocouuelihhera	64.14	pron. adj.			gen. sg.		fem.	īh-suffix	3	V
i	n	unacc		truhtinlihhera	64.15	adj.			gen. sg.		fem.	īn-suffix	3	V
i	n	unacc		truhtinlihhera	64.15	adj.			gen. sg.		fem.	īh-suffix	3	V
i	n	unacc		missilihchem	66.15	adj.			dat. pl.		fem.	īh-suffix	3	V

i	n	unacc		abantihihero	67.09		adj.		gen. pl.		masc.	lih-suffix	3	V
i	n	unacc		tagalihchen	67.15		adj.		gen. sg.		masc.	lih-suffix	3	V
i	n	unacc		eocouuelicha	68.02		pron. adj.		acc. sg.		fem.	lih-suffix	3	V
i	n	unacc		oduula	68.04		adv.					compound	3	V
i	n	unacc		uuelichemv	68.04		pron. adj.		dat. sg.		masc.	lih-suffix	3	V
i	n	unacc		andaruuis	68.06		adv.					wīs-suffix	3	V
i	n	unacc		ecouuelichu	68.07		pron. adj.		inst. sg.		neut.	lih-suffix	3	V
i	n	unacc		eocouuelichera	68.08		pron. adj.		dat. sg.		fem.	lih-suffix	3	V
i	n	unacc		<b>h</b> radalihcho	68.18	*	adv.					lih-suffix	3	V
i	n	unacc		cotchundi	69.03		noun		acc. sg.		fem.	ī-fem	3	V
i	n	unacc		edeslihchui	70.01		pron. adj.		acc. pl.		neut.	lih-suffix	3	V
i	n	unacc		luttrj	70.04		noun		gen. sg.		fem.	ī-fem	3	V
i	n	unacc		scamlihcho	70.12		adv.					lih-suffix	3	V
i	n	unacc		edeslihcher	71.08		pron. adj.		nom. sg.		masc.	lih-suffix	3	V
i	n	unacc		lastarlihher	71.09		adj.		nom. sg.		masc.	lih-suffix	3	V
i	n	unacc		fruati	72.14		noun		dat. sg.		fem.	ī-fem	3	V
i	n	unacc		einstrjter	73.04		adj.		nom. sg.		masc.	compound	3	V
i	n	unacc		uuidaruuarti	73.06		noun		dat. sg.		fem.	ī-fem	3	V
i	n	unacc		offanlihcho	73.12		adv.					lih-suffix	3	V
i	n	unacc		armeinsami	73.14		noun		unclear		fem.	ī-fem	3	V
i	n	unacc		lihchamlihera	73.16		adj.		dat. sg.		fem.	lih-suffix	3	V
i	n	unacc	ka	limflihchan	74.16		adj.		acc. sg.		masc.	lih-suffix	3	V
i	n	unacc		ekislihun	75.07		adj.		acc. sg.		fem.	lih-suffix	3	V
i	n	unacc		suslichan	75.08		adj.		acc. sg.		masc.	lih-suffix	3	V
i	n	unacc		faruurti	75.09		noun		acc. sg.		fem.	ī-fem	3	V

i	n	unacc		ejnigamu	75.13	*	adj.		dat. sg.		masc.	īg-suffix	3	V
i	n	unacc		uuelichu	76.01		pron. adj.					līh-suffix	3	V
i	n	unacc		rjhti	76.04		noun		gen. sg.		fem.	ī-fem	3	V
i	n	unacc		eocouuelichu	76.11		pron. adj.		inst. sg.		neut.	līh-suffix	3	V
i	n	unacc		huassi	77.05		noun		dat. sg.		fem.	ī-fem	3	V
i	n	unacc		horski	77.06		noun		dat. sg.		fem.	ī-fem	3	V
i	n	unacc		einikas	77.06		adj.		acc. sg.		neut.	īg-suffix	3	V
i	n	unacc		emezzico	78.06		adv.					īg-suffix	3	V
i	n	unacc		uuelicha	78.07		pron. adj.					līh-suffix	3	V
i	y	unacc		horskii	79.03		noun		acc. pl.		fem.	ī-fem	1	VI
i	n	unacc		ungilaubiger	79.11		adj.		nom. sg.		masc.	īg-suffix	1	VI
i	n	unacc		sultjgaz	79.12		adj.		nom. sg.		neut.	īg-suffix	1	VI
i	n	unacc		theomuati	80.02		noun		nom. sg.		fem.	ī-fem	1	VI
i	n	unacc		eocouuelihan	80.05		pron. adj.		acc. sg.		masc.	līh-suffix	1	VI
i	n	unacc		eocouuelihaz	80.08		pron. adj.		nom. sg.		neut.	līh-suffix	1	VI
i	n	unacc		huueljh	81.09		pron. adj.		nom. sg.		masc.	līh-suffix	1	VI
i	n	unacc		odhuuila	81.10		adv.					compound	1	VI
i	n	unacc		vnredihafthihui	81.10		adj.		acc. pl.		neut.	līh-suffix	1	VI
i	n	unacc		eddeslihiv	81.10		pron. adj.		acc. pl.		neut.	līh-suffix	1	VI
i	n	unacc		deomuati	81.12		noun		dat. sg.		fem.	ī-fem	1	VI
i	n	unacc		redihafthihho	81.12		adv.					līh-suffix	1	VI
i	n	unacc		potoljhha	81.15		adj.		acc. sg.		neut.	līh-suffix	1	VI
i	n	unacc		vnmahtjgero	81.17		adj.		gen. pl.		masc.	īg-suffix	1	VI
i	n	unacc		eocouuelihheru	81.18		pron. adj.		dat. sg.		fem.	līh-suffix	1	VI

i	n	unacc	pi	hucti		82.01	noun		dat. sg.	fem.	ī-fem	1	VI
i	n	unacc		ejnikemu		83.01	adj.		dat. sg.	masc.	īg-suffix	1	VI
i	n	unacc		huuelihemv		83.15	pron. adj.				līh-suffix	1	VI
i	n	unacc		rehtlihchun		84.09	adj.		dat. sg.	fem.	līh-suffix	3	VI
i	n	unacc		einic		85.08	adj.		nom. sg.	masc.	īg-suffix	3	VI
i	n	unacc		rehtlichum		85.11	*	adj.	dat. sg.	fem.	līh-suffix	3	VI
i	n	unacc		einluzlihchem		85.15	adj.		dat. pl.		līh-suffix	3	VI
i	n	unacc		duruftigtot		85.18	verb		3rd sg. pres.	ind.	īg-suffix	3	VI
i	n	unacc		einikemv		86.08	adj.		dat. sg.	neut.	īg-suffix	3	VI
i	n	unacc		uuelicha		86.08	pron. adj.		dat. sg.	fem.	līh-suffix	3	VI
i	n	unacc		uuelichemv		86.09	pron. adj.		dat. sg.	neut.	līh-suffix	3	VI
i	n	unacc		siuhchi		86.15	noun		nom. sg.	fem.	ī-fem	3	VI
i	n	unacc		bidarbi		86.16	noun		gen. sg.	fem.	ī-fem	3	VI
i	n	unacc		uuelih		86.16	pron. adj.				līh-suffix	3	VI
i	n	unacc		uueljhhe		87.05	pron. adj.		acc. pl.	masc.	līh-suffix	1	VI
i	y	unacc		murmulodii		88.04	noun		dat. sg.	fem.	ī-fem	1	VI
i	n	unacc	ke	dultihho		89.14	adv.				līh-suffix	1	VI
i	n	unacc		ejnigiu		89.17	adj.		nom. sg.	fem.	īg-suffix	1	VI
i	n	unacc		piderbi		90.04	noun		nom. sg.	fem.	ī-fem	1	VI
i	y	unacc	vn	chreftjgii		91.03	noun		nom. sg.	fem.	ī-fem	1	VI
i	n	unacc		rehljhhiu		91.06	*	adj.	acc. pl.	neut.	līh-suffix	1	VI
i	n	unacc		odhuuila		91.09	adv.				compound	1	VI
i	y	unacc	ke	mejsamii		91.14	noun		dat. sg.	fem.	ī-fem	1	VI
i	y	unacc		prejtji		91.16	noun		gen. sg.	fem.	ī-fem	1	VI



i	y	unacc		suukilii	92.05		noun	nom. sg.	fem.		ī-fem	3	VI
i	n	unacc		duruftigohe	92.10	*	verb	3rd sg. pres.	opt.		īg-suffix	3	VI
i	n	unacc		uueliches	92.11		pron. adj.	gen. sg.	neut.		līh-suffix	3	VI
i	n	unacc		einiger	92.13		adj.	nom. sg.	masc.		īg-suffix	3	VI
i	n	unacc		skemlichō	92.17		adv.				līh-suffix	3	VI
i	n	unacc		antreiti	93.06		noun	acc. sg.	fem.		ī-fem	3	VI
i	n	unacc		tagalihchin	93.10		adj.	dat. sg.	masc.		līh-suffix	3	VI
i	n	unacc		ummahtim	93.12		noun	dat. pl.	fem.		ī-fem	3	VI
i	n	unacc		missilichero	93.12		adj.	gen. pl.	masc.		līh-suffix	3	VI
i	y	unacc		ubarazalii	94.10		noun	nom. sg.	fem.		ī-fem	3	VI
i	n	unacc	un	fardeuuti	94.12		noun	nom. sg.	fem.		ī-fem	3	VI
i	y	unacc		ubarazzalii	94.14		noun	nom. sg.	fem.		ī-fem	3	VI
i	y	unacc		ubarazzalii	94.16		noun	nom. sg.	fem.		ī-fem	3	VI
i	y	unacc		mihhili	94.18		noun	nom. sg.	fem.		ī-fem	3	VI
i	n	unacc		eocouuelicher	95.06		pron. adj.	nom. sg.	masc.		līh-suffix	3	VII
i	n	unacc		eddeslihchemv	95.08		pron. adj.	dat. sg.	masc.		līh-suffix	3	VII
i	n	unacc	un	chreftigi	95.11		noun	acc. sg.	fem.		ī-fem	3	VII
i	y	unacc	far	traganii	95.14		noun	acc. sg.	fem.		ī-fem	3	VII
i	y	unacc		fullji	96.02		noun	nom. sg.	fem.		ī-fem	1	VII
i	y	unacc		ubartrunchanii	96.02		noun	nom. sg.	fem.		ī-fem	1	VII
i	y	unacc		seti	96.08		noun	dat. sg.	fem.		ī-fem	1	VII
i	n	unacc		sparalihhor	96.09		adv.				līh-suffix	1	VII
i	n	unacc		freidige	96.10		adj.	acc. pl.	masc.		īg-suffix	1	VII
i	n	unacc		murmulodin	96.17	*	noun	dat. pl.	fem.		ī-fem	1	VII

i	y	unacc		unmezzigii	97.07	noun	nom. sg.	fem.	ī-fem	1	VII
i	n	unacc		eġġin	97.11	verb	3rd pl. pres.	opt.	pret. opt.	1	VII
i	y	unacc		murmuloġdii	97.17	noun	dat. sg.	fem.	ī-fem	1	VII
i	n	unacc		duruftigoen	98.06	verb	3rd pl. pres.	opt.	īg-suffix	1	VII
i	n	unacc		stilli	98.13	noun	acc. sg.	fem.	ī-fem	1	VII
i	n	unacc		eocuueljheru	98.13	pron. adj.	dat. sg.	fem.	līh-suffix	1	VII
i	n	unacc		nahtjhhem	98.15	adj.	dat. pl.	fem.	līh-suffix	1	VII
i	n	unacc		eocuueljheru	98.15	pron. adj.	dat. sg.	fem.	līh-suffix	1	VII
i	y	unacc		urlaubii	100.01	noun	nom. sg.	fem.	ī-fem	1	VII
i	n	unacc		ejnic	100.03	adj.	nom. sg.	masc.	īg-suffix	1	VII
i	y	unacc		suuikalii	100.04	noun	gen. sg.	fem.	ī-fem	1	VII
i	n	unacc	ke	rihtj	100.05	noun	dat. sg.	fem.	ī-fem	1	VII
i	n	unacc		eddeslihhemu	100.08	pron. adj.	dat. sg.	masc.	līh-suffix	1	VII
i	y	unacc		fruatji	100.09	noun	dat. sg.	fem.	ī-fem	1	VII
i	y	unacc		mezhaftji	100.10	noun	dat. sg.	fem.	ī-fem	1	VII
i	n	unacc		fruatj	100.17	noun	dat. sg.	fem.	ī-fem	1	VII
i	n	unacc		nahtjhhem	101.02	adj.	dat. pl.	fem.	līh-suffix	1	VII
i	n	unacc		sitjliho	101.05	adv.			līh-suffix	1	VII
i	n	unacc		suntrigo	101.09	adv.			īg-suffix	1	VII
i	n	unacc		soljhhem	101.09	pron. adj.	dat. pl.	masc.	līh-suffix	1	VII
i	n	unacc		offanljhhera	101.12	adj.	dat. sg.	fem.	līh-suffix	1	VII
i	n	unacc		piliben	101.17	verb	3rd pl. pres.	opt.	compound	1	VII
i	n	unacc		tagaljjhhem	102.06	adj.	dat. pl.	fem.	līh-suffix	1	VII
i	y	unacc		vrlaubii	102.13	noun	acc. sg.	fem.	ī-fem	1	VII

i	n	unacc	far	lazzani	102.14	noun	dat. sg.	fem.	ī-fem	1	VII
i	n	unacc		huueliher	102.17	pron. adj.	nom. sg.	masc.	līh-suffix	1	VII
i	n	unacc	ke	limflihera	103.18	adj.	dat. sg.	fem.	līh-suffix	1	VII
i	n	unacc	ka	nuhctsami	105.06	noun	gen. sg.	fem.	ī-fem	3	VII
i	n	unacc	ka	nuctsami	105.08	noun	gen. sg.	fem.	ī-fem	3	VII
i	n	unacc		uuelih	105.15	pron. adj.			līh-suffix	3	VII
i	n	unacc	ki	rijhti	106.03	noun	dat. sg.	fem.	ī-fem	3	VII
i	n	unacc		ruachalosi	106.05	noun	dat. sg.	fem.	ī-fem	3	VII
i	n	unacc		seljhcha	106.06	pron. adj.	acc. sg.	fem.	līh-suffix	3	VII
i	n	unacc		uuelihcheru	106.09	pron. adj.			līh-suffix	3	VII
i	n	unacc		edesliheru	106.12	pron. adj.	dat. sg.	fem.	līh-suffix	3	VII
i	n	unacc		atumlihem	107.04	adj.	dat. pl.	masc.	līh-suffix	3	VII
i	n	unacc	pi	huctikemv	107.11	adj.	dat. sg.	masc.	īg-suffix	3	VII
i	n	unacc		uuelichemv	107.11	pron. adj.			līh-suffix	3	VII
i	n	unacc		fruati	108.02	noun	dat. sg.	fem.	ī-fem	3	VII
i	n	unacc		uppigi	108.05	noun	nom. sg.	fem.	ī-fem	3	VII
i	n	unacc		uppigi	108.05	noun	nom. sg.	fem.	īg-suffix	3	VII
i	n	unacc		stilli	108.17	noun	dat. sg.	fem.	ī-fem	3	VII
i	n	unacc		eocouueliheru	108.17	pron. adj.	dat. sg.	fem.	līh-suffix	3	VII
i	n	unacc		oduila	108.18	adv.			compound	3	VII
i	n	unacc		citljhor	109.02	adv.			līh-suffix	3	VII
i	n	unacc		uuelihhem	110.05	pron. adj.	dat. pl.	neut.	līh-suffix	3	VII
i	n	unacc		alongi	110.15	noun	dat. sg.	fem.	ī-fem	3	VII
i	n	unacc		upigi	111.04	noun	dat. sg.	fem.	ī-fem	3	VIII

i	n	unacc		upigi	111.04	noun	dat. sg.	fem.	īg-suffix	3	VIII
i	n	unacc		solihcher	111.06	pron. adj.	nom. sg.	masc.	līh-suffix	3	VIII
i	n	unacc	ki	rjhti	111.09	noun	dat. sg.	fem.	ī-fem	3	VIII
i	n	unacc		rehtlihchun	111.09	adj.	dat. sg.	fem.	līh-suffix	3	VIII
i	n	unacc		solicha	111.10	pron. adj.	acc. sg.	fem.	līh-suffix	3	VIII
i	n	unacc		missalihchem	111.14	adj.	dat. pl.	neut.	līh-suffix	3	VIII
i	n	unacc		<b>hu</b> elih	111.15	pron. adj.			līh-suffix	3	VIII
i	n	unacc		unmahtiken	112.01	* adj.	dat. pl.	masc.	īg-suffix	3	VIII
i	n	unacc		solichaz	112.02	pron. adj.	nom. sg.	neut.	līh-suffix	3	VIII
i	n	unacc		ubige	112.03	adj.	nom. pl.	masc.	īg-suffix	3	VIII
i	n	unacc	un	mahtj	112.05	noun	nom. sg.	fem.	ī-fem	3	VIII
i	n	unacc		ecouuelihcheru	112.08	pron. adj.	dat. sg.	fem.	līh-suffix	3	VIII
i	n	unacc		lutrj	112.13	noun	gen. sg.	fem.	ī-fem	3	VIII
i	n	unacc		ruachalosi	112.14	noun	acc. pl.	fem.	ī-fem	3	VIII
i	n	unacc		uuirdike	112.16	adj.	nom. pl.	masc.	īg-suffix	3	VIII
i	n	unacc		stuncnissi	112.18	noun	dat. sg.	fem.	ī-fem	3	VIII
i	n	unacc		suntrjclihchiv	113.04	adj.	acc. pl.	neut.	īg-suffix	3	VIII
i	n	unacc		suntrjclihchiv	113.04	adj.	acc. pl.	neut.	līh-suffix	3	VIII
i	n	unacc		ecouuelicher	113.06	pron. adj.	nom. sg.	masc.	līh-suffix	3	VIII
i	n	unacc		mendi	113.08	noun	dat. sg.	fem.	ī-fem	3	VIII
i	n	unacc		atumlhchvm	113.11	* adj.	gen. sg.	fem.	līh-suffix	3	VIII
i	y	unacc		mendii	113.12	noun	dat. sg.	fem.	ī-fem	3	VIII
i	n	unacc		ecouuelicher	113.14	pron. adj.	nom. sg.	masc.	līh-suffix	3	VIII
i	n	unacc		atumlhchin	113.17	adj.	gen. sg.	masc.	līh-suffix	3	VIII

i	n	unacc	pi	hucticho	117.15	adv.					lĭh-suffix	3	VIII
i	n	unacc		suntrġgo	118.01	adv.					ġg-suffix	3	VIII
i	n	unacc		durftġgoen	118.06	verb		3rd pl. pres.		opt.	ġg-suffix	3	VIII
i	n	unacc		murmolodi	118.07	noun		dat. sg.		fem.	ĭ-fem	3	VIII
i	n	unacc	ki	nuhticho	118.18	adv.					lĭh-suffix	3	VIII
i	n	unacc		uuihi	119.07	noun		dat. sg.		fem.	ĭ-fem	3	VIII
i	n	unacc		einigan	119.12	adj.	*	acc. sg.		masc.	ġg-suffix	3	VIII
i	n	unacc		uuelicha	119.14	pron. adj.					lĭh-suffix	3	VIII
i	n	unacc		rehtichvn	120.08	adj.		dat. sg.		fem.	lĭh-suffix	3	VIII
i	n	unacc		eki	120.09	noun		dat. sg.		fem.	ĭ-fem	3	VIII
i	n	unacc		hvvvealihmissim	120.12	noun	*	dat. pl.		fem.	ĭ-fem	3	VIII
i	y	unacc		mezlihcġii	120.13	noun		dat. sg.		fem.	ĭ-fem	3	VIII
i	n	unacc	ki	duruftġgot	120.14	part. pret.					ġg-suffix	3	VIII
i	y	unacc		farauuii	121.05	noun		dat. sg.		fem.	ĭ-fem	3	VIII
i	y	unacc		grozzii	121.05	noun		dat. sg.		fem.	ĭ-fem	3	VIII
i	n	unacc		smahlichot	121.08	adv.	*				lĭh-suffix	3	VIII
i	y	unacc		suntrġelichii	122.14	noun		gen. sg.		fem.	ĭ-fem	3	VIII
i	n	unacc		suntrġelichii	122.14	noun		gen. sg.		fem.	ġg-suffix	3	VIII
i	n	unacc		suntrġelichii	122.14	noun		gen. sg.		fem.	lĭh-suffix	3	VIII
i	y	unacc		suntrġelichii	122.18	noun		gen. sg.		fem.	ĭ-fem	3	VIII
i	n	unacc		suntrġelichii	122.18	noun		gen. sg.		fem.	lĭh-suffix	3	VIII
i	n	unacc		suntrġelichii	123.01	noun		gen. sg.		fem.	ġg-suffix	3	VIII
i	n	unacc		eocouuelih	123.06	pron. adj.		nom. sg.		fem.	lĭh-suffix	3	VIII
i	n	unacc		duruftġgontero	123.12	part. pres.		gen. pl.		masc.	ġg-suffix	3	VIII

i	n	unacc		abanstikero	123.13	adj.	gen. pl.	masc.	īg-suffix	3	VIII
i	n	unacc		eocouuelicheru	124.05	pron. adj.	dat. sg.	fem.	līh-suffix	3	VIII
i	n	unacc		solihcher	124.09	pron. adj.	nom. sg.	masc.	līh-suffix	3	VIII
i	n	unacc		vvelichero	124.15	pron. adj.			līh-suffix	3	VIII
i	n	unacc		einikera	124.16	adj.	dat. sg.	fem.	īg-suffix	3	VIII
i	n	unacc		ejniga	125.01	adj.	acc. sg.	fem.	īg-suffix	3	VIII
i	y	unacc		nefkirji	125.04	noun	gen. sg.	fem.	ī-fem	3	VIII
i	n	unacc		smahlichor	125.06	adv.			līh-suffix	3	VIII
i	n	unacc		uuerultlihem	125.06	adj.	dat. pl.		līh-suffix	3	VIII
i	n	unacc		uuidarmvati	125.14	noun	acc. pl.	fem.	ī-fem	3	VIII
i	n	unacc	ka	dvltlichō	125.16	adv.			līh-suffix	3	VIII
i	y	unacc		dikii	125.18	noun	dat. sg.	fem.	ī-fem	3	VIII
i	n	unacc		solih	126.04	pron. adj.	nom. sg.	masc.	līh-suffix	3	VIII
i	n	unacc	pi	huctiger	126.07	adj.	nom. sg.	masc.	īg-suffix	3	VIII
i	n	unacc		rvahlichō	126.07	adv.			līh-suffix	3	VIII
i	n	unacc		itvizzze	126.09	noun	dat. sg.	masc.	compound	3	VIII
i	n	unacc		horsami	126.09	noun	dat. sg.	fem.	ī-fem	3	VIII
i	n	unacc		statiki	126.12	noun	gen. sg.	fem.	ī-fem	3	VIII
i	n	unacc		statiki	126.12	noun	gen. sg.	fem.	īg-suffix	3	VIII
i	n	unacc		antreiti	126.14	noun	acc. sg.	fem.	ī-fem	3	VIII
i	n	unacc		situlichā	127.16	noun	acc. sg.	fem.	līh-suffix	3	IX
i	n	unacc		statigi	128.02	noun	dat. sg.	fem.	ī-fem	3	IX
i	n	unacc		statigi	128.02	noun	dat. sg.	fem.	īg-suffix	3	IX
i	n	unacc		horsami	128.03	noun	dat. sg.	fem.	ī-fem	3	IX



i	n	unacc		claulicho	134.07		adv.						līh-suffix	3	IX
i	n	unacc		statiki	134.09		noun		acc. sg.	fem.			ī-fem	3	IX
i	n	unacc		statiki	134.09		noun		acc. sg.	fem.			īg-suffix	3	IX
i	n	unacc		solih	134.10		pron. adj.		nom. sg.	masc.			līh-suffix	3	IX
i	y	unacc		castluamii	134.11		noun		gen. sg.	fem.			ī-fem	3	IX
i	y	unacc		kastlvamii	134.14		noun		gen. sg.	fem.			ī-fem	3	IX
i	n	unacc		achvstiger	134.14		adj.		nom. sg.	masc.			īg-suffix	3	IX
i	n	unacc		erlihho	134.17		adv.						līh-suffix	3	IX
i	y	unacc		vvenekii	134.18		noun		nom. sg.	fem.			ī-fem	3	IX
i	n	unacc		solichan	135.08		pron. adj.		acc. sg.	masc.			līh-suffix	3	IX
i	n	unacc		solichan	135.15		pron. adj.		acc. sg.	masc.			līh-suffix	3	IX
i	n	unacc	pi	folahanlichho	136.02		adj.		acc. sg.	fem.			līh-suffix	3	IX
i	n	unacc		vvirdiger	136.08		adj.		nom. sg.	masc.			īg-suffix	3	IX
i	y	unacc		keilii	136.10		noun		acc. sg.	fem.			ī-fem	3	IX
i	y	unacc		horsamii	136.15		noun		gen. sg.	fem.			ī-fem	3	IX
i	y	unacc		ekii	136.16		noun		acc. sg.	fem.			ī-fem	3	IX
i	n	unacc		ervveliti	137.03		noun		nom. sg.	fem.			ī-fem	3	IX
i	n	unacc		ardarvvis	137.08	*	adv.						wīs-suffix	3	IX
i	n	unacc		vvidarvvigo	137.09		noun		nom. sg.	masc.			compound	3	IX
i	n	unacc		ejnstrjtii	137.15		noun		nom. sg. fem.				compound	3	IX
i	y	unacc		ejnstrjtii	137.15		noun		nom. sg.	fem.			ī-fem	3	IX
i	n	unacc		friljhha	138.05		adj.		acc. sg.	fem.			līh-suffix	1	IX
i	n	unacc		antrejtm	138.10		noun		dat. pl.	fem.			ī-fem	1	IX
i	y	unacc	ke	mejnсамii	138.12		noun		dat. sg.	fem.			ī-fem	1	IX



i	n	unacc		uuirdigi	139.08	noun	gen. sg.	fem.	ī-fem	1	IX
i	n	unacc		uuirdigi	139.08	noun	gen. sg.	fem.	īg-suffix	1	IX
i	n	unacc		huueljhes	139.08	pron. adj.			līh-suffix	1	IX
i	y	unacc		ejkii	139.10	noun	nom. sg.	fem.	ī-fem	1	IX
i	y	unacc		namahaftii	139.13	noun	dat. sg.	fem.	ī-fem	1	IX
i	y	unacc		eruurdii	139.18	noun	nom. sg.	fem.	ī-fem	1	IX
i	n	unacc		faterlīhhiv	139.18	adj.	nom. sg.	fem.	līh-suffix	1	IX
i	y	unacc	Jnt	habanii	140.03	noun	dat. sg.	fem.	ī-fem	1	IX
i	n	unacc		vvirdiger	140.05	adj.	nom. sg.	masc.	īg-suffix	1	IX
i	n	unacc		soljghera	140.05	pron. adj.	gen. sg.	fem.	līh-suffix	1	IX
i	y	unacc		vvīhii	140.07	noun	acc. sg.	fem.	ī-fem	1	IX
i	n	unacc		ejgin	140.17	verb	3rd pl. pres.	opt.	pret. opt.	1	IX
i	n	unacc	furj	stantljhaz	140.18	adj.	acc. sg.	neut.	līh-suffix	1	IX
i	n	unacc		eocohuuelih	141.04	pron. adj.	nom. sg.	masc.	līh-suffix	1	IX
i	n	unacc		hejljcorin	141.07	adj.	dat. sg.	neut.	līh-suffix	1	IX
i	y	unacc		spahii	141.09	noun	gen. sg.	fem.	ī-fem	1	IX
i	n	unacc		purdi	142.08	noun	acc. sg.	fem.	ī-fem	1	IX
i	n	unacc		huueljhha	142.08	pron. adj.			līh-suffix	1	IX
i	y	unacc		prodii	143.04	noun	acc. sg.	fem.	ī-fem	1	X
i	n	unacc		eocouueljhemv	143.10	pron. adj.	dat. sg.	masc.	līh-suffix	1	X
i	n	unacc		ejnstrjter	143.13	adj.	nom. sg.	masc.	compound	1	X
i	n	unacc		restj	143.15	noun	nom. sg.	fem.	ī-fem	1	X
i	n	unacc	ke	mezljhhee	143.18	verb	3rd sg. pres.	opt.	līh-suffix	1	X
i	n	unacc	ke	mezljhhee	144.07	verb	3rd sg. pres.	opt.	līh-suffix	1	X

i	n	unacc		eddeslihe	145.01		pron. adj.	nom. pl.	masc.	l̥h-suffix	1	X
i	n	unacc		vngalimfl̥h	145.11		adj.	nom. sg.	fem.	l̥h-suffix	1	X
i	n	unacc		ungiristl̥h	145.19		adj.	nom. sg.	neut.	l̥h-suffix	1	X
i	n	unacc		vngil̥h	145.19		adj.	nom. sg.	neut.	l̥h-suffix	1	X
i	y	unacc	f	lorinii	146.07	*	noun	acc. sg.	fem.	l̥-fem	1	X
i	n	unacc		solj̥hem	146.08		pron. adj.	dat. pl.		l̥h-suffix	1	X
i	n	unacc		piderbi	146.18		noun	nom. pl.	fem.	l̥-fem	1	X
i	n	unacc		redihaf̥tl̥jhho	147.04		adv.			l̥h-suffix	1	X
i	n	unacc		huelj̥hhan	147.06		pron. adj.	acc. sg.	masc.	l̥h-suffix	1	X
i	n	unacc	ki	huct̥jl̥hho	147.14		adv.			l̥h-suffix	1	X
i	y	unacc		ubar̥mvḁt̥ji	147.16	*	noun	dat. sg.	fem.	l̥-fem	1	X
i	y	unacc		riifi	148.18		noun	nom. sg.	fem.	l̥-fem	1	X
i	n	unacc		eddeslj̥hhera	149.05	*	pron. adj.	nom. sg.	masc.	l̥h-suffix	1	X
i	y	unacc		mit̥juuari	149.08		noun	dat. sg.	fem.	l̥-fem	1	X
i	n	unacc		illant̥liho	149.09		adv.			l̥h-suffix	1	X
i	n	unacc		duruft̥j̥goe	149.10		verb	3rd sg. pres.	opt.	l̥g-suffix	1	X
i	n	unacc		missil̥jhho	149.15		adj.	acc. pl.	fem.	l̥h-suffix	1	X
i	n	unacc	ke	hucti	150.08		noun	nom. sg.	fem.	l̥-fem	1	X
o	n	unacc		v̥vihono	8.02		adj.	gen. pl.	neut.	ōno-ending	1	I
o	n	unacc		muazzot	8.10		verb	3rd sg. pres.	ind.	ō-verb	1	I
o	n	unacc		muazzo	8.12	*	verb	3rd sg. pres.	opt.	ō-verb	1	I
o	n	unacc		deonosti	8.17		noun	gen. sg.	fem.	ōst-suffix	1	I
o	n	unacc	ke	duunganor	9.03		part. pret.			ōr-compar.	1	I
o	n	unacc	uner	rahhot̥lihera	9.11		adj.	gen. sg.	fem.	ō-verb derived	1	I
o	n	unacc		dolungono	9.15		noun	gen. pl.	fem.	ōno-ending	1	I

o	n	unacc		ebanlozzon	9.17		adj.	nom. pl.	masc.	compound	1	I
o	n	unacc		keros	10.01		verb	2nd sg. pres.	opt.	ō-verb	1	I
o	n	unacc		uuillom	11.04		noun	dat. pl.	masc.	ōm-ending	1	I
o	n	unacc	ana	stantantlihostin	11.10		adj.	dat. sg.	neut.	ōst-superlat.	1	I
o	n	unacc	ke	uuerdonter	11.12		part. pres.	nom. sg.	masc.	ō-verb	1	I
o	n	unacc	ni	uuolton	12.04		verb	3rd pl. pret.	ind.	weak pret.	1	I
o	n	unacc		augom	12.09		noun	dat. pl.	neut.	ōm-ending	1	I
o	n	unacc		oorom	12.10		noun	dat. pl.	neut.	ōm-ending	1	I
o	y	unacc	zua	manoot	12.11		verb	3rd sg. pres.	ind.	ō-verb	1	I
o	y	unacc		keroot	13.06		verb	3rd sg. pres.	ind.	ō-verb	1	I
o	n	unacc	ke	ladontes	13.18	*	part. pres.	gen. sg.	masc.	ō-verb	1	I
o	n	unacc		lanchom	14.04		noun	dat. pl.	fem.	ōm-ending	1	I
o	y	unacc		frijdoo	14.06	*	noun	gen. sg.	masc.	u-stem	1	I
o	y	unacc		ladoot	14.07		verb	3rd sg. pres.	ind.	ō-verb	1	I
o	n	unacc	ki	haltidom	15.10		noun	dat. pl.	fem.	ōm-ending	1	II
o	n	unacc		vverchontan	15.13		part. pres.	acc. sg.	masc.	ō-verb	1	II
o	n	unacc		mihhilont	15.14		verb	3rd pl. pres.	ind.	ō-verb	1	II
o	n	unacc		soso	15.16		adv.			compound	1	II
o	n	unacc	ke	ljhhison	16.05		verb	1st sg. pres.	ind.	ō-verb	1	II
o	n	unacc	ke	zimbrotā	16.05		verb	3rd sg. pret.	ind.	ō-verb	1	II
o	y	unacc		platoon	16.07		verb	3rd pl. pret.	ind.	weak pret.	1	II
o	n	unacc		erloso	16.08		adv.			compound	1	II
o	y	unacc		pejtoot	16.10		verb	3rd sg. pres.	ind.	ō-verb	1	II
o	n	unacc	int	frahetomes	17.02		verb	1st pl. pret.	ind.	weak pret.	1	II
o	n	unacc	ke	hortomees	17.03		verb	1st pl. pret.	ind.	weak pret.	1	II

o	n	unacc		sananungono	17.10	noun	gen. pl.	fem.	ōno-ending	1	I
o	n	unacc		lirneton	17.16	verb	3rd pl. pret.	ind.	weak pret.	1	II
o	n	unacc	ke	nuhtsamont	18.05	verb	3rd pl. pres.	ind.	ō-verb	1	II
o	n	unacc		soso	18.09	adv.			compound	1	II
o	n	unacc	ke	chorote	18.09	part. pret.	nom. pl.	masc.	ō-verb	1	II
o	n	unacc		deononte	18.11	part. pres.	nom. pl.	masc.	ō-verb	1	II
o	n	unacc		kiridono	18.16	noun	gen. pl.	fem.	ōno-ending	1	II
o	n	unacc		suuihonte	19.06	part. pres.	nom. pl.	masc.	ō-verb	1	II
o	y	unacc		vvilloom	19.07	noun	dat. pl.	masc.	ōm-ending	1	II
o	n	unacc		deononte	19.08	part. pres.	nom. pl.	masc.	ō-verb	1	II
o	n	unacc		discono	20.08	noun	gen. pl.	masc.	ōno-ending	1	II
o	n	unacc		discono	20.11	noun	gen. pl.	masc.	ōno-ending	1	II
o	n	unacc		rachono	20.12	noun	gen. pl.	fem.	ōno-ending	1	II
o	n	unacc		vnhorsamontj	20.18	* part. pres.			ō-verb	1	II
o	n	unacc	far	hocton	21.08	verb	3rd pl. pret.	ind.	weak pret.	1	II
o	n	unacc		discom	21.13	noun	dat. pl.	masc.	ōm-ending	1	II
o	y	unacc		discoom	21.15	noun	dat. pl.	masc.	ōm-ending	1	II
o	n	unacc		ejnfaltihhero	21.17	* adj.	dat. pl.	masc.	ōm-ending	1	II
o	y	unacc		discoom	22.01	noun	dat. pl.	masc.	ōm-ending	1	II
o	n	unacc		suntontemv	22.05	part. pres.	dat. sg.	masc.	ō-verb	1	II
o	n	unacc	er	rahhos	22.06	verb	2nd sg. pres.	ind.	ō-verb	1	II
o	n	unacc		fietos	22.08	verb	2nd sg. pret.	ind.	weak pret.	1	II
o	y	unacc	ke	minnoot	22.13	part. pret.			ō-verb	1	II
o	n	unacc		deonosti	22.16	noun	dat. sg.	fem.	ōst-suffix	1	II
o	n	unacc		dictontemv	22.18	part. pres.	dat. sg.	masc./neut.	ō-verb	1	II

o	n	unacc		deonostes	23.05	noun	gen. sg.	neut.	ōst-suffix	1	II
o	n	unacc		ekisom	24.02	noun	dat. pl.	masc.	ōm-ending	1	II
o	n	unacc		hartor	24.05	adv.			ōr-compar.	1	II
o	n	unacc		ruahchalose	24.08	adj.	acc. pl.	masc.	lōs-suffix	1	II
o	n	unacc	zua	manomees	24.09	verb	1st pl. pres.	ind.	ō-verb	1	II
o	n	unacc		vurzhafior	24.10	adv.			ōr-compar.	1	II
o	n	unacc		altinoe	24.10	verb	3rd sg. pres.	opt.	ō-verb	1	II
o	n	unacc		eervvirdigoron	24.15	noun	acc. pl.	masc.	ōr-compar.	1	II
o	y	unacc		filloom	25.03	noun	dat. pl.	fem.	ōm-ending	1	II
o	y	unacc		slehtjidoom	25.14	noun	dat. pl.	fem.	ōm-ending	1	II
o	y	unacc		rafsungoom	25.15	noun	dat. pl.	fem.	ōm-ending	1	II
o	y	unacc		deonoon	25.15	verb	infinitive		ō-verb	1	II
o	n	unacc	ke	mahhoe	25.18	verb	3rd sg. pres.	opt.	ō-verb	1	II
o	n	unacc		altinontj	26.04	part. pres.			ō-verb	1	II
o	n	unacc		selono	26.05	noun	gen. pl.	fem.	ōno-ending	1	II
o	y	unacc		rahhoom	26.07	noun	dat. pl.	fem.	ōm-ending	1	II
o	n	unacc		chlagoe	26.11	verb	3rd sg. pres.	opt.	ō-verb	1	II
o	n	unacc	ke	auhhot	26.14	part. pret.			ō-verb	1	II
o	n	unacc		selbono	27.03	pron. adj.	gen. pl.		ōno-ending	1	II
o	n	unacc		selono	27.04	noun	gen. pl.	fem.	ōno-ending	1	II
o	n	unacc	ke	auhhotj	27.05	part. pret.	*		ō-verb	1	II
o	y	unacc		redinoom	27.08	noun	dat. pl.	fem.	ōm-ending	1	II
o	y	unacc		manungoom	27.10	noun	dat. pl.	fem.	ōm-ending	1	II
o	n	unacc		trahtoe	27.18	verb	3rd sg. pres.	opt.	ō-verb	1	II
o	n	unacc		piderborin	28.01	adj.	gen. sg.	neut.	ōr-compar.	1	II

o	y	unacc		hejlljthoor	28.09		adj.	nom. sg.	neut.		ōr-compar.	1	II
o	y	unacc		discoom	28.10		noun	dat. pl.	masc.		ōm-ending	1	II
o	y	unacc		suanoom	29.07		noun	dat. pl.	fem.		ōm-ending	1	II
o	n	unacc		ebanostin	29.07		adj.	dat. sg.	masc.		ōst-superlat.	1	II
o	y	unacc		piderbidoom	29.10		noun	dat. pl.	fem.		ōm-ending	1	II
o	n	unacc		herostono	29.10		adj.	gen. pl.	masc.		ōno-ending	1	II
o	n	unacc		herostono	29.10		adj.	gen. pl.	masc.		ōst-superlat.	1	II
o	n	unacc		hrivoes	29.13		verb	2nd sg. pres.	opt.		ō-verb	1	II
o	n	unacc		minnonne	29.15		verb	inf.dat.			ō-verb	1	II
o	n	unacc		soso	29.17		adv.				compound	1	II
o	n	unacc		huaro	30.01		verb	2nd sg. pres.	imp.		ō-verb	1	II
o	n	unacc		keroes	30.02		verb	2nd sg. pres.	opt.		ō-verb	1	II
o	y	unacc		minnoon	30.08		verb	infinitive			ō-verb	1	II
o	n	unacc		uuison	30.09		verb	infinitive			ō-verb	1	II
o	n	unacc		fluahhonte	31.03		part. pres.	acc. pl.	masc.		ō-verb	1	III
o	y	unacc		minnoon	31.03		verb	infinitive			ō-verb	1	III
o	n	unacc		murmulontan	31.09		part. pres.	acc. sg.	masc.		ō-verb	1	III
o	y	unacc		keroon	31.16		verb	infinitive			ō-verb	1	III
o	y	unacc		augoom	31.17		noun	dat. pl.	neut.		ōm-ending	1	III
o	y	unacc		minnoon	32.06		verb	infinitive			ō-verb	1	III
o	y	unacc		minnoon	32.08		verb	infinitive			ō-verb	1	III
o	n	unacc		vvarljthor	33.04		adv.				ōr-compar.	1	III
o	y	unacc		minnoon	33.07		verb	infinitive			ō-verb	1	III
o	n	unacc		heroston	33.09		adj.	acc. pl.	masc.		ōst-superlat.	1	III
o	y	unacc		minnoon	33.10		verb	infinitive			ō-verb	1	III

o	y	unacc		petoon	33.11		verb	infinitive		ō-verb	1	III
o	y	unacc		minnoon	33.19		verb	infinitive		ō-verb	1	III
o	y	unacc		minnoont	34.04		verb	3rd pl. pres.	ind.	ō-verb	1	III
o	n	unacc		tiurorin	34.12		adj.	gen. sg.	masc.	ōr-compar.	1	III
o	n	unacc		deonost	34.13		noun	acc. sg.	neut.	ōst-suffix	1	III
o	n	unacc		samaso	34.16		adv.			compound	1	III
o	n	unacc		kaganhorjdu	35.01		noun	dat. sg.	fem.	compound	1	III
o	y	unacc		vvilloom	35.05		noun	dat. pl.	masc.	ōm-ending	1	III
o	n	unacc		snivmor	35.13		adv.			ōr-compar.	1	III
o	y	unacc		vvilloom	36.01		noun	dat. pl.	masc.	ōm-ending	1	III
o	n	unacc		hoorsamonte	36.02		part. pres.	nom. pl.	masc.	ō-verb	1	III
o	n	unacc		stozzonto	36.10	*	adv.			ō-verb derived	1	III
o	n	unacc		murmuloode	36.11		noun	dat. sg.	masc.	ōd-suffix	1	III
o	y	unacc		meriroom	36.13		adj.	dat. pl.	unclear	ōm-ending	1	III
o	y	unacc		discoom	36.16		noun	dat. pl.	masc.	ōm-ending	1	III
o	y	unacc		minnoot	36.17		verb	3rd sg. pres.	ind.	ō-verb	1	III
o	y	unacc		keroont	36.19		verb	3rd pl. pres.	ind.	ō-verb	1	III
o	y	unacc		murmoloot	37.01	*	verb	3rd sg. pres.	ind.	ō-verb	1	III
o	n	unacc		murmolontaz	37.04		part. pres.	acc. sg.	neut.	ō-verb	1	III
o	n	unacc		murmolonteru	37.06	*	part. pres.	gen. pl.	masc.	ō-verb	1	III
o	n	unacc		sprahhom	37.14		noun	dat. pl.	fem.	ōm-ending	1	III
o	n	unacc		zimbirrono	37.18		noun	gen. pl.	fem.	ōno-ending	1	III
o	y	unacc		sprahhoom	38.01		noun	dat. pl.	fem.	ōm-ending	1	III
o	y	unacc		discoom	38.01		noun	dat. pl.	masc.	ōm-ending	1	III
o	y	unacc	ke	deonoot	39.01		part. pret.			ō-verb	1	III





o	n	unacc		soso	46.10	adv.					compound	1	III
o	n	unacc	er	suahtos	46.10	verb			ind.		weak pret.	1	III
o	n	unacc	ana	lejttoos	46.11	verb			ind.		weak pret.	1	III
o	n	unacc		saztoos	46.12	verb			ind.		weak pret.	1	III
o	n	unacc	ana	saztos	46.15	verb			ind.		weak pret.	1	III
o	n	unacc		erlosida	48.01	noun			fem.		compound	2	IV
o	n	unacc		samaso	48.05	adv.					compound	2	IV
o	n	unacc	anaki	mahchot	48.05	part. pret.					ō-verb	2	IV
o	n	unacc	ke	prauhoter	48.08	part. pret.			masc.		ō-verb	2	IV
o	n	unacc		smahlihorun	48.11	adj.			masc.		ōr-compar.	2	IV
o	n	unacc		innarorun	48.11	adj.			masc.		ōr-compar.	2	IV
o	n	unacc		theononte	48.14	part. pres.			masc.		ō-verb	2	IV
o	n	unacc	ke	deonoter	48.17	part. pret.			masc.		ō-verb	2	IV
o	n	unacc	ke	deonotos	48.18	verb			ind.		ō-verb	2	IV
o	n	unacc	ke	deonotos	48.18	verb			ind.		weak pret.	2	IV
o	n	unacc		merorono	49.05	adj.			masc.		ōr-compar.	2	IV
o	n	unacc		merorono	49.05	adj.			masc.		ōno-ending	2	IV
o	n	unacc		suntom	50.19	noun	*		fem.		ōm-ending	1	IV
o	n	unacc		<b>augom</b>	51.01	noun			neut.		ōm-ending	2	IV
o	n	unacc	ke	deonoter	51.05	part. pret.			masc.		ō-verb	2	IV
o	y	unacc		anoo	51.11	prep.	*				other	2	IV
o	n	unacc		ssamaso	51.12	adv.	*				compound	2	IV
o	n	unacc		suntom	51.17	noun			fem.		ōm-ending	2	IV
o	n	unacc	ke	uuerdonter	51.17	part. pres.			masc.		ō-verb	2	IV
o	n	unacc		mittilodi	52.05	noun			fem.		ōd-suffix	3	IV

o	n	unacc		durufitigont	52.09		verb	3rd pl. pres.	ind.	ō-verb	3	IV
o	n	unacc	ana	deonoen	52.10		verb	3rd pl. pres.	opt.	ō-verb	3	IV
o	n	unacc		uuahtono	52.12		noun	gen. pl.	fem.	ōno-ending	3	IV
o	n	unacc	ka	temprot	52.12		part. pret.			ō-verb	3	IV
o	n	unacc	untar	mahonne	53.05		verb	inf. dat		ō-verb	3	IV
o	n	unacc		nivnzogostin	53.07		num.	dat. sg.	masc.	ōst-superlat.	3	IV
o	n	unacc		scrannom	53.14		noun	dat. pl.	fem.	ōm-ending	3	IV
o	n	unacc		hertom	53.15		noun	dat. pl.	masc.	ōm-ending	3	IV
o	n	unacc		<b>uuahtom</b>	54.05		noun	dat. pl.	fem.	ōm-ending	3	IV
o	n	unacc		rehtculichontem	54.08	*	adj.	dat. pl.	masc.	ō-verb	3	IV
o	n	unacc		redinone	54.14		verb	inf. dat		ō-verb	3	IV
o	n	unacc	ki	entot	54.16		part. pret.			ō-verb	3	IV
o	n	unacc		<b>leczeom</b>	55.04		noun	dat. pl.	fem.	ōm-ending	3	IV
o	n	unacc		<b>leczeon</b>	55.07	*	noun	dat. pl.	fem.	ōm-ending	3	IV
o	n	unacc		uuahtom	55.12		noun	dat. pl.	fem.	ōm-ending	3	IV
o	n	unacc		salmono	55.12		noun	gen. pl.	masc.	ōno-ending	3	IV
o	n	unacc		niunzogosto	55.14		num.	nom. sg.	masc.	ōst-superlat.	3	IV
o	n	unacc		uuahtom	55.17		noun	dat. pl.	fem.	ōm-ending	3	IV
o	n	unacc		uuahtom	55.17		noun	dat. pl.	fem.	ōm-ending	3	IV
o	n	unacc		fordron	56.11		adj.	nom. pl.	masc.	compound	3	IV
o	n	unacc		soso	56.11		adv.			compound	3	IV
o	n	unacc		uuahtono	57.09		noun	gen. pl.	fem.	ōno-ending	3	IV
o	n	unacc		spator	57.12		adv.			ōr-compar.	3	IV
o	n	unacc		lectionom	57.13		noun	dat. pl.	fem.	ōm-ending	3	IV
o	n	unacc		ruachalosi	57.17		noun	nom. sg.	fem.	lōs-suffix	3	IV

o	n	unacc		sexzugosto	58.02	num.	nom. sg.	masc.	ōst-superlat.	3	IV
o	n	unacc		finfzugosto	58.04	num.	nom. sg.	masc.	ōst-superlat.	3	IV
o	n	unacc		sehzugosto	58.06	num.	nom. sg.	masc.	ōst-superlat.	3	IV
o	n	unacc		soso	58.16	adv.			compound	3	IV
o	n	unacc		finfzugostin	58.17	num.	dat. sg.	masc.	ōst-superlat.	3	IV
o	n	unacc		drjzugosto	59.03	num.	nom. sg.	masc.	ōst-superlat.	3	IV
o	n	unacc		ahtozogosto	59.05	num.	nom. sg.	masc.	ōst-superlat.	3	IV
o	n	unacc		ahtozogosto	59.05	num.	nom. sg.	masc.	ōst-superlat.	3	IV
o	n	unacc		niunzogosto	59.06	num.	nom. sg.	masc.	ōst-superlat.	3	IV
o	n	unacc		sibunzogosto	59.06	num.	nom. sg.	masc.	ōst-superlat.	3	IV
o	n	unacc		soso	59.09	adv.			compound	3	IV
o	n	unacc		uiizagom	59.09	noun	dat. pl.	masc.	ōm-ending	3	IV
o	n	unacc		herorjin	60.01	adj.	dat. sg.	masc.	ōr-compar.	3	IV
o	n	unacc		zuruuarjdono	60.01	noun	gen. pl.	fem.	ōno-ending	3	IV
o	n	unacc		soso	60.05	adv.			compound	3	IV
o	n	unacc		soso	60.11	adv.			compound	3	IV
o	n	unacc		ostrom	60.18	noun	dat. pl.	fem.	ōm-ending	3	IV
o	n	unacc		afttrorom	61.05	adj.	dat. pl.	masc.	ōr-compar.	3	IV
o	n	unacc		afttrorom	61.05	adj.	dat. pl.	masc.	ōm-ending	3	IV
o	n	unacc		salmon	61.05	noun	dat. pl.	masc.	ōm-ending	3	IV
o	n	unacc		theonostes	62.01	noun	gen. sg.	neut.	ōst-suffix	3	IV
o	n	unacc		uuilom	62.02	noun	dat. pl.	fem.	ōm-ending	3	IV
o	n	unacc		rahhomes	62.08	verb	1st pl. pres.	ind. or opt.	ō-verb	3	IV
o	n	unacc	ki	saztomes	62.14	verb	1st pl. pret.	ind.	weak pret.	3	IV
o	n	unacc		selbono	63.08	pron. adj.	gen. pl.		ōno-ending	3	V

o	n	unacc	ki	marchot	63.15		part. pret.						3	ō-verb		V
o	n	unacc		redinone	63.16		verb		inf. dat				3	ō-verb		V
o	n	unacc		nahtuuahchom	65.11		noun		dat. pl.		fem.		3	ōm-ending		V
o	n	unacc		zueinzicozstin	65.12		num.		dat. sg.		masc.		3	ōst-superlat.		V
o	n	unacc	ki	spentotemv	65.17		part. pret.		dat. sg.		masc.		3	ō-verb		V
o	n	unacc	ki	suntrot	66.16		part. pret.						3	ō-verb		V
o	n	unacc	ki	mahchot	67.07		part. pret.						3	ō-verb		V
o	n	unacc		uuahtono	67.18		noun		gen. pl.		fem.		3	ōno-ending		V
o	n	unacc		manonte	68.03		part. pres.		nom. pl.		masc.		3	ō-verb		V
o	n	unacc		salmono	68.05		noun		gen. pl.		masc.		3	ōno-ending		V
o	n	unacc		uuahton	68.11	*	noun		dat. pl.		fem.		3	ōm-ending		V
o	n	unacc		deonostes	68.12		noun		gen. sg.		neut.		3	ōst-suffix		V
o	n	unacc	ki	uuatote	72.06		part. pret.		nom. pl.		masc.		3	ō-verb		V
o	n	unacc		curtilom	72.07		noun		dat. pl.		fem.		3	ōm-ending		V
o	n	unacc		herjrom	72.17		adj.		dat. pl.		masc.		3	ōm-ending		V
o	n	unacc		herjrono	73.07		adj.		gen. pl.		masc.		3	ōno-ending		V
o	n	unacc		rjngirom	74.04		adj.		dat. pl.		unclear		3	ōm-ending		V
o	n	unacc		redinoe	74.10		verb		3rd sg. pres.		opt.		3	ō-verb		V
o	n	unacc	ki	spentot	75.01		part. pret.						3	ō-verb		V
o	n	unacc	ka	mahchon	76.01		verb		infinitive				3	ō-verb		V
o	n	unacc		ahsalom	78.02		noun		dat. pl.		fem.		3	ōm-ending		V
o	n	unacc	ka	uuerdonti	78.03		part. pres.						3	ō-verb		V
o	n	unacc		armeinsamoter	78.08		part. pret.		nom. sg.		masc.		3	ō-verb		V
o	n	unacc		fillono	78.09		noun		gen. pl.		fem.		3	ōno-ending		V
o	y	unacc	ke	choroot	80.02		part. pret.						1	ō-verb		VI

o	y	unacc		filloom	80.15		noun	dat. pl.	fem.	ōm-ending	1	VI
o	n	unacc		soso	81.06		adv.			compound	1	VI
o	y	unacc	anaki	mahhoot	82.16		verb	3rd sg. pres.	ind.	ō-verb	1	VI
o	y	unacc		lihhisode	83.01		noun	dat. sg.	masc.	ōd-suffix	1	VI
o	n	unacc		rahhom	83.16		noun	dat. pl.	fem.	ōm-ending	1	VI
o	n	unacc		ruahchaloso	84.06		adv.			lōs-suffix	3	VI
o	n	unacc		trahtot	84.07		verb	3rd sg. pres.	ind.	ō-verb	3	VI
o	n	unacc		uurzhaftor	84.10		adv.			ōr-compar.	3	VI
o	n	unacc	ki	lustidot*	85.09		part. pret.			ō-verb	3	VI
o	n	unacc		soso	85.15		adv.			compound	3	VI
o	n	unacc		duruftigtot	85.18		verb	3rd sg. pres.	ind.	ō-verb	3	VI
o	n	unacc	ki	theonot	86.03		part. pret.			ō-verb	3	VI
o	n	unacc	ent	rachot	86.14		part. pret.			ō-verb	3	VI
o	y	unacc	ent	rahhoot	87.04		part. pret.			ō-verb	1	VI
o	y	unacc		meroom	87.06		adj.	dat. pl.	fem.	ōm-ending	1	VI
o	y	unacc		piderboom	87.06	*	noun	dat. pl.	fem.	ōm-ending	1	VI
o	n	unacc		murmulodii	88.04		noun	dat. sg.	fem.	ōd-suffix	1	VI
o	n	unacc	ke	entoteem	88.09		part. pret.	dat. pl.	neut.	ō-verb	1	VI
o	n	unacc	ke	scauuen	89.11		verb	3rd pl. pres.	opt.	ō-verb	1	VI
o	n	unacc		deononte	89.13		part. pres.	acc. pl.	masc.	ō-verb	1	VI
o	y	unacc		deonostman	90.02		noun	nom. sg.	masc.	ōst-suffix	1	VI
o	y	unacc		tragoor	90.06		adv.			ōr-compar.	1	VI
o	n	unacc	ke	pezzitote	90.09		part. pret.	nom. pl.	masc.	ō-verb	1	VI
o	n	unacc	ke	ruahhalosoot	90.12		part. pret.			lōs-suffix	1	VI
o	n	unacc		deonostun	90.12	*	noun	dat. pl.	masc.	ōst-suffix	1	VI

o	y	unacc	ke	ruahhalosoot	90.12		part. pret.						1	VI
o	y	unacc		discoom	90.14		noun				masc.		1	VI
o	n	unacc		liblejtom	91.04		noun				fem.		1	VI
o	n	unacc		santom	91.13		noun				fem.		1	VI
o	n	unacc		duruftigohe	92.10	*	verb				opt.		3	VI
o	n	unacc		heroro	92.16		adj.				masc.		3	VI
o	n	unacc		merod	92.18		noun				masc.		3	VI
o	n	unacc		deonostmannum	93.05		noun				masc.		3	VI
o	n	unacc	ke	nuhtsamoen	93.16		verb				opt.		3	VI
o	n	unacc		abandmuasontem	94.06		part. pres.				masc.		3	VI
o	n	unacc		auchon	94.09		verb						3	VI
o	n	unacc		soso	94.13		adv.						3	VI
o	n	unacc		merom	94.18		adj.				masc.		3	VI
o	n	unacc		herostin	95.18		adj.				masc.		3	VII
o	n	unacc		sparalihhor	96.09		adv.						1	VII
o	n	unacc	zua	manonte	96.16		part. pres.				masc.		1	VII
o	n	unacc		murmulodin	96.17	*	noun				fem.		1	VII
o	n	unacc		caumoien	97.10		verb				opt.		1	VII
o	n	unacc		emizzigonne	97.13		verb						1	VII
o	n	unacc	ke	temproe	97.15		verb				opt.		1	VII
o	n	unacc		murmulodii	97.17		noun				fem.		1	VII
o	n	unacc		duruftigoen	98.06		verb				opt.		1	VII
o	n	unacc	ke	entot	98.08		part. pret.						1	VII
o	n	unacc	ke	temprot	98.10		part. pret.						1	VII
o	n	unacc		zimbroe	99.03		verb				opt.		1	VII

o	n	unacc		zuuitor	100.01	adv.						1	ōr-compar.		VII
o	n	unacc		erhaftost	100.10	adv.						1	ōst-superlat.		VII
o	n	unacc		vvahtom	101.02	noun					fem.	1	ōm-ending		VII
o	n	unacc		ruahhalosontem	101.09	part. pres.					masc.	1	lōs-suffix		VII
o	n	unacc		ruahhalosontem	101.09	part. pres.					masc.	1	ō-verb		VII
o	n	unacc		hriuoe	101.13	verb					opt.	1	ō-verb		VII
o	n	unacc	ke	statot	102.01	verb					ind.	1	ō-verb		VII
o	n	unacc		rahhom	102.02	noun					fem.	1	ōm-ending		VII
o	n	unacc		caugrot	102.02	verb					ind.	1	ō-verb		VII
o	n	unacc	ke	mahhon	102.11	verb						1	ō-verb		VII
o	n	unacc		kerot	103.15	verb					ind.	1	ō-verb		VII
o	n	unacc		vvidarot	103.15	verb					ind.	1	ō-verb		VII
o	n	unacc		vvidarota	103.16	verb					ind.	1	ō-verb		VII
o	n	unacc		suntom	104.03	noun					fem.	3	ōm-ending		VII
o	n	unacc		arnehmensamont	104.04	part. pret.	*					3	ō-verb		VII
o	n	unacc		rjnkirom	105.09	adj.					unclear	3	ōm-ending		VII
o	n	unacc	ka	theonoter	105.18	part. pret.					masc.	3	ō-verb		VII
o	n	unacc		ruachalosi	106.05	noun					fem.	3	lōs-suffix		VII
o	n	unacc		selom	107.02	noun					fem.	3	ōm-ending		VII
o	n	unacc		herorom	107.05	adj.					masc.	3	ōr-compar.		VII
o	n	unacc		herorom	107.05	adj.					masc.	3	ōm-ending		VII
o	n	unacc		offanon	107.08	verb						3	ō-verb		VII
o	n	unacc	ka	mahchoe	107.12	verb					opt.	3	ō-verb		VII
o	n	unacc	ke	ummuazon	108.06	verb						3	ō-verb		VII
o	n	unacc		antreitidom	108.10	verb	*					3	ō-verb		VII

o	n	unacc		uuerchoen	108.13	verb	3rd pl. pres.	opt.	ō-verb	3	VII
o	n	unacc		muazzoen	108.15	verb	3rd pl. pres.	opt.	ō-verb	3	VII
o	n	unacc		citijhhor	109.02	adv.			ōr-compar.	3	VII
o	n	unacc		mittilodontera	109.02	part. pres.	dat. sg.	fem.	ōd-suffix	3	VII
o	n	unacc		mittilodontera	109.02	part. pres.	dat. sg.	fem.	ō-verb	3	VII
o	n	unacc		samanonne	109.07	verb	inf.dat.		ō-verb	3	VII
o	n	unacc		muazzoen	109.15	verb	3rd pl. pres.	opt.	ō-verb	3	VII
o	n	unacc	ka	mahchot	109.18	part. pret.			ō-verb	3	VII
o	n	unacc	in	mahchoen	110.01	verb	3rd pl. pres.	opt.	ō-verb	3	VII
o	n	unacc		clohhot	110.03	verb	3rd sg. pres.	ind.	ō-verb	3	VII
o	n	unacc		leczom	110.07	noun	dat. pl.	fem.	ōm-ending	3	VII
o	n	unacc		muazzoen	110.07	verb	3rd pl. pres.	opt.	ō-verb	3	VII
o	n	unacc		uuerchoen	110.11	verb	3rd pl. pres.	opt.	ō-verb	3	VII
o	n	unacc	anaki	machot	110.12	part. pret.			ō-verb	3	VII
o	n	unacc		heroston	110.18	adj.	nom. pl.	masc.	ōst-superlat.	3	VII
o	n	unacc		muazzoen	111.01	verb	3rd pl. pres.	opt.	ō-verb	3	VIII
o	n	unacc		sprahchon	111.04	noun	dat. pl.	fem.	ōm-ending	3	VIII
o	n	unacc		gaugrot	111.04	verb	3rd sg. pres.	ind.	ō-verb	3	VIII
o	n	unacc		soso	111.07	adv.			compound	3	VIII
o	n	unacc	ki	mahchot	111.11	part. pret.			ō-verb	3	VIII
o	n	unacc		mvazzoen	111.13	verb	3rd pl. pres.	opt.	ō-verb	3	VIII
o	n	unacc		ruachalosonti	111.15	part. pres.			lōs-suffix	3	VIII
o	n	unacc		ruachalosonti	111.15	part. pres.			ō-verb	3	VIII
o	n	unacc	anaki	mahchot	111.17	part. pret.			ō-verb	3	VIII
o	n	unacc		caugroe	111.18	verb	3rd sg. pres.	opt.	ō-verb	3	VIII



o	n	unacc	anaki	mahchot	112.03		part. pret.						3	VIII
o	n	unacc	pi	scauuone	112.06		verb	inf. dat.					3	VIII
o	n	unacc		ruachalosi	112.14		noun	acc. pl.		fem.			3	VIII
o	n	unacc	ki	temprot	112.17		part. pret.						3	VIII
o	n	unacc		auhchomes	113.02		verb	1st pl. pres.		ind. or opt.			3	VIII
o	n	unacc		theonostes	113.03		noun	gen. sg.		neut.			3	VIII
o	n	unacc		durftigoen	118.06		verb	3rd pl. pres.		opt.			3	VIII
o	n	unacc		murmolodi	118.07		noun	dat. sg.		fem.			3	VIII
o	n	unacc		minnirom	118.09	*	adj.	dat. pl.					3	VIII
o	n	unacc		gaugront	118.14		verb	3rd pl. pres.		ind.			3	VIII
o	n	unacc		horsamoen	118.14		verb	3rd pl. pres.		opt.			3	VIII
o	n	unacc	ki	mahchot	119.03		pp						3	VIII
o	n	unacc	ki	duruftigtot	120.14		part. pret.						3	VIII
o	n	unacc		rachono	121.04		noun	gen. pl.		fem.			3	VIII
o	n	unacc	ki	chlagot	121.05		part. pret.						3	VIII
o	n	unacc		smahlichot	121.08	*	adv.			comparative			3	VIII
o	n	unacc		uurzhaftor	123.01		adv.						3	VIII
o	n	unacc	ke	scauuot	123.07		part. pret.						3	VIII
o	n	unacc		soso	123.10		adv.						3	VIII
o	n	unacc	pi	scauuuho	123.11		verb	3rd sg. pres.		opt.			3	VIII
o	n	unacc		duruftigonger	123.12		part. pres.	gen. pl.		masc.			3	VIII
o	n	unacc		itlot	123.14	*	noun	acc. sg.		masc./neut.			3	VIII
o	n	unacc		svanono	123.14		noun	gen. pl.		fem.			3	VIII
o	n	unacc		herorun	124.01		adj.	acc. sg.		masc.			3	VIII
o	n	unacc	far	doleton	125.01		verb	3rd pl. pret.		ind.			3	VIII

o	n	unacc		smahlichor	125.06	adv.				comparative	ōr-compar.	3	VIII
o	n	unacc		chorot	125.12	verb			2nd pl. pres.	imp.	ō-verb	3	VIII
o	n	unacc		chlochonti	125.13	part. pres.					ō-verb	3	VIII
o	n	unacc		herosto	126.04	adj.			nom. sg.	masc.	ōst-superlat.	3	VIII
o	n	unacc	ki	chorot	127.02	part. pret.					ō-verb	3	IX
o	n	unacc	ent	rahon	127.17	verb			infinitive		ō-verb	3	IX
o	n	unacc		pismerot	128.06	verb			3rd sg. pres.	ind.	ō-verb	3	IX
o	n	unacc	zva	auhchonte	129.02	part. pres.			nom. pl.	masc.	ō-verb	3	IX
o	n	unacc	int	vvatot	129.13	part. pret.					ō-verb	3	IX
o	n	unacc	ke	uutatoter	129.14	part. pret.			nom. sg.	masc.	ō-verb	3	IX
o	n	unacc	int	vvatoter	129.16	part. pret.			nom. sg.	masc.	ō-verb	3	IX
o	n	unacc		rachom	130.03	noun			dat. pl.	fem.	ōm-ending	3	IX
o	n	unacc	ent	vvatoter	130.03	part. pret.			nom. sg.	masc.	ō-verb	3	IX
o	n	unacc		rahchom	131.09	noun			dat. pl.	fem.	ōm-ending	3	IX
o	n	unacc		lirnetomes	131.17	verb			1st pl. pret.	ind.	weak pret.	3	IX
o	n	unacc		urchundom	132.03	noun	*		dat. pl.	masc.	ōm-ending	3	IX
o	n	unacc		snivmor	132.07	adv.					ōr-compar.	3	IX
o	n	unacc	vntar	deonotan	132.17	part. pret.			acc. sg.	masc.	ō-verb	3	IX
o	n	unacc	ki	machon	133.08	verb			infinitive		ō-verb	3	IX
o	n	unacc	ki	statot	133.09	part. pret.					ō-verb	3	IX
o	n	unacc		kerot	134.04	verb			3rd sg. pres.	ind.	ō-verb	3	IX
o	n	unacc		trahtohee	134.07	verb			3rd sg. pres.	opt.	ō-verb	3	IX
o	n	unacc		festinon	134.10	verb			infinitive		ō-verb	3	IX
o	n	unacc	ke	vvidarot	134.10	part. pret.					ō-verb	3	IX
o	n	unacc	ka	machon	134.15	verb			infinitive		ō-verb	3	IX



o	n	unacc	anaki	mahhot	143.18		verb		3rd sg. pres.	ind.	ō-verb	1	X
o	n	unacc		keront	144.08		verb		3rd pl. pres.	ind.	ō-verb	1	X
o	n	unacc		rihhidom	145.04		noun		dat. pl.	fem.	ōm-ending	1	X
o	n	unacc		rjchisod	145.05		noun		nom. sg.	neut.	ōd-suffix	1	X
o	n	unacc	ubar	muatonne	145.16		verb		inf. dat		ō-verb	1	X
o	n	unacc	jnt	uuatotan	145.17		part. pret.		acc. sg.	masc.	ō-verb	1	X
o	n	unacc		elljnodes	146.03	*	noun		nom. pl.	masc.	compound	1	X
o	n	unacc	ke	freisot	146.04		part. pret.				ō-verb	1	X
o	n	unacc	ki	saztomes	146.17		verb		1st pl. pret.	ind.	weak pret.	1	X
o	n	unacc	ubar	muateo	147.02		verb		3rd sg. pres.	opt.	ō-verb	1	X
o	n	unacc	anaki	mahhot	147.10		part. pret.				ō-verb	1	X
o	n	unacc	ke	choroter	148.01		part. pret.		nom. sg.	masc.	ō-verb	1	X
o	n	unacc	ke	manot	148.01		part. pret.				ō-verb	1	X
o	n	unacc		caugrot	149.01	*	verb		infinitive		ō-verb	1	X
o	n	unacc		chlocchot	149.05		verb		3rd sg. pres.	ind.	ō-verb	1	X
o	n	unacc		durufijgoe	149.10		verb		3rd sg. pres.	opt.	ō-verb	1	X
o	n	unacc	ke	caugrot	149.17		part. pret.				ō-verb	1	X
o	n	unacc	int	rahhoe	150.04		verb		3rd sg. pres.	opt.	ō-verb	1	X
u	n	unacc		truhtjnljnhun	8.17		adj.		gen. sg.	fem.	ū-ending	1	I
u	n	unacc		redjun	9.04		noun		dat. sg.	fem.	ū-ending	1	I
u	n	unacc		forahtun	9.07		noun		dat. sg.	fem.	ū-ending	1	I
u	n	unacc		altun	10.03		adj.		gen. sg.	fem.	ū-ending	1	I
u	n	unacc		niuun	10.03		adj.		gen. sg.	fem.	ū-ending	1	I
u	n	unacc		forahtun	12.17		noun		acc. sg.	fem.	ū-ending	1	I
u	n	unacc		zungun	13.09		noun		dat. sg.	fem.	ū-ending	1	I

u	n	unacc		seljdun	14.13		noun	dat. sg.	fem.	ū-ending	1	I
u	n	unacc		zungun	15.02		noun	dat. sg.	fem.	ū-ending	1	II
u	n	unacc		hrivvvn	16.16		noun	dat. sg.	fem.	ū-ending	1	II
u	n	unacc		fehtvn	18.01		noun	dat. sg.	fem.	ū-ending	1	II
u	n	unacc		sihhure	18.02		adj.	nom. pl.	masc.	sihhur	1	II
u	y	unacc		cheluun	19.07		noun	gen. sg.	fem.	ū-ending	1	II
u	n	unacc		eristun	24.18		adj.	dat. sg.	fem.	ū-ending	1	II
u	n	unacc		soragun	26.07		noun	acc. sg.	fem.	ū-ending	1	II
u	n	unacc		redun	26.10		noun	acc. sg.	fem.	ū-ending	1	II
u	n	unacc		minnirun	26.11		adj.	dat. sg.	fem.	ū-ending	1	II
u	n	unacc		redun	26.18		noun	dat. sg.	fem.	ū-ending	1	II
u	n	unacc		redun	27.05		noun	acc. sg.	fem.	ū-ending	1	II
u	n	unacc		mejstrun	28.14		adj.	dat. sg.	fem.	ū-ending	1	II
u	n	unacc		rehtihhun	29.03		adj.	dat. sg.	fem.	ū-ending	1	II
u	n	unacc		forahtun	29.04		noun	dat. sg.	fem.	ū-ending	1	II
u	n	unacc		redun	29.08		noun	acc. sg.	fem.	ū-ending	1	II
u	n	unacc		vvelun*	30.07	*	noun	acc. pl.	fem.	ū-ending	1	II
u	n	unacc		fastun	30.07		noun	acc. sg.	fem.	ū-ending	1	II
u	n	unacc		aatumljhhvn	31.15		adj.	dat. sg.	fem.	ū-ending	1	III
u	n	unacc		lectjun	32.08		noun	acc. pl.	fem.	ū-ending	1	III
u	y	unacc		sunnuun	33.11		noun	gen. sg.	fem.	ū-ending	1	III
u	n	unacc		atumlihhvn	33.14		adj.	gen. sg.	fem.	ū-ending	1	III
u	n	unacc	vf	stejc	34.03		verb	3rd sg. pret.	ind.	prefix	1	III
u	n	unacc		forahtun	34.14		noun	acc. sg.	fem.	ū-ending	1	III
u	n	unacc		forahtun	35.12		noun	gen. sg.	fem.	ū-ending	1	III

u	n	unacc		zungun	37.11	noun	dat. sg.	fem.	ũ-ending	1	III
u	n	unacc		zungun	38.06	noun	gen. sg.	fem.	ũ-ending	1	III
u	n	unacc		furistun	38.10	noun	dat. sg.	fem.	ũ-ending	1	III
u	n	unacc		furjstun	39.12	noun	gen. sg.	fem.	ũ-ending	1	III
u	n	unacc	ufer	haban	39.16	part. pret.			prefix	1	III
u	n	unacc	vf	stiganteem	39.18	part. pres.	dat. pl.	masc.	prefix	1	III
u	n	unacc	vf	stigante	40.02	part. pres.	nom. pl.	masc.	prefix	1	III
u	n	unacc	vf	stigan	40.07	verb	infinitive		prefix	1	III
u	n	unacc	vf	stiganteem	40.14	part. pres.	dat. pl.	masc.	prefix	1	III
u	n	unacc		forahtun	40.16	noun	acc. sg.	fem.	ũ-ending	1	III
u	n	unacc		zungun	41.07	noun	gen. sg.	fem.	ũ-ending	1	III
u	n	unacc		suuigentun	45.11	part. pres.	dat. sg.	fem.	ũ-ending	1	III
u	n	unacc		sihhure	46.04	adj.	nom. pl.	masc.	sihhur	1	III
u	n	unacc		tunihun	47.01	noun	dat. sg.	fem.	ũ-ending	1	IV
u	n	unacc		zungun	48.12	noun	dat. sg.	fem.	ũ-ending	2	IV
u	n	unacc		Inuuartun	48.13	adj.	dat. sg.	fem.	ũ-ending	2	IV
u	n	unacc	ka	mejnsanum*	49.04	adj.	dat. sg.	fem.	ũ-ending	2	IV
u	n	unacc		zungun	49.07	noun	acc. sg.	fem.	ũ-ending	2	IV
u	n	unacc	ufki	stikanem	51.07	part. pret.	dat. pl.	masc.	prefix	2	IV
u	n	unacc	uz	sentit	51.09	verb	3rd sg. pres.	ind.	prefix	2	IV
u	n	unacc		forahtun	51.09	noun	acc. sg.	fem.	ũ-ending	2	IV
u	n	unacc		forahtun	51.10	noun	acc. sg.	fem.	ũ-ending	2	IV
u	n	unacc		forahtun	51.13	noun	dat. sg.	fem.	ũ-ending	2	IV
u	n	unacc		ahtodun	52.03	adj.	dat. sg.	fem.	ũ-ending	3	IV
u	n	unacc		vvahntun	52.07	noun	dat. pl.	fem.	ũ-ending	3	IV

u	n	unacc		skemmistun	52.13		adj.		dat. sg.		fem.	ū-ending	3	IV
u	n	unacc	uz	kanken	52.15		verb		3rd pl. pres.		opt.	prefix	3	IV
u	n	unacc		<b>anteponun</b>	53.09	*	noun				fem.	ū-ending	3	IV
u	n	unacc		leczun	53.16		noun		nom. pl.		fem.	ū-ending	3	IV
u	n	unacc		uuithun	54.04		adj.		gen. sg.		fem.	ū-ending	3	IV
u	n	unacc		altun	54.05		adj.		gen. sg.		fem.	ū-ending	3	IV
u	n	unacc		cotchundun	54.06		adj.		gen. sg.		fem.	ū-ending	3	IV
u	n	unacc		niuun	54.06		adj.		gen. sg.		fem.	ū-ending	3	IV
u	n	unacc		rehtculichontem	54.08	*	adj.		dat. pl.		masc.	compound	3	IV
u	n	unacc		altun	55.07		adj.		dat. sg.		fem.	ū-ending	3	IV
u	n	unacc		<b>leczun</b>	56.05		noun		nom. pl.		fem.	ū-ending	3	IV
u	n	unacc		<b>leczun</b>	56.16		noun		nom. pl.		fem.	ū-ending	3	IV
u	n	unacc		<b>leczun</b>	57.02		noun		acc. sg.		fem.	ū-ending	3	IV
u	n	unacc		forahtun	57.03		noun		dat. sg.		fem.	ū-ending	3	IV
u	n	unacc		chirjchun	57.16		noun		dat. sg.		fem.	ū-ending	3	IV
u	n	unacc		<b>antephonun</b>	58.03		noun				fem.	ū-ending	3	IV
u	n	unacc		leczun	58.07		noun		nom. pl.		fem.	ū-ending	3	IV
u	n	unacc		truhtinlihun	58.16		noun		gen. sg.		fem.	ū-ending	3	IV
u	n	unacc		<b>antephonun</b>	58.18	*	noun				fem.	ū-ending	3	IV
u	n	unacc		<b>antephonun</b>	60.13		noun				fem.	ū-ending	3	IV
u	n	unacc		<b>leczun</b>	60.14		noun		nom. pl.		fem.	ū-ending	3	IV
u	n	unacc		fastun	61.04		noun		gen. sg.		fem.	ū-ending	3	IV
u	n	unacc		fastun	61.07		noun		acc. sg.		fem.	ū-ending	3	IV
u	n	unacc		lecziun	65.01		noun		nom. pl.		fem.	ū-ending	3	V
u	n	unacc		lecziun	65.14		noun		nom. pl.		fem.	ū-ending	3	V

u	n	unacc		truhtinlichun	66.06		noun	gen. sg.	fem.	ū-ending	3	V
u	n	unacc		uuehchun	68.08		noun	dat. sg.	fem.	ū-ending	3	V
u	n	unacc		uuehchun	68.15		noun	gen. sg.	fem.	ū-ending	3	V
u	n	unacc		cotchundun	70.11		adj.	gen. sg.	fem.	ū-ending	3	V
u	n	unacc		sihchurer	71.04		adj.	nom. pl.	masc.	sihhur	3	V
u	n	unacc		ekislihun	75.07		noun	acc. sg.	fem.	ū-ending	3	V
u	n	unacc		ruachun	76.05		noun	acc. sg.	fem.	ū-ending	3	V
u	n	unacc	ka	nuctsamun	76.18		adj.	dat. sg.	fem.	ū-ending	3	V
u	n	unacc		salbun	78.16		noun	acc. pl.	fem.	ū-ending	3	V
u	n	unacc		Iungistun	80.01		adj.	dat. sg.	fem.	ū-ending	1	VI
u	n	unacc		ruahhvn	81.06		noun	acc. sg.	fem.	ū-ending	1	VI
u	n	unacc		redun	82.03		noun	acc. sg.	fem.	ū-ending	1	VI
u	y	unacc		pezzistuun	82.15		adj.	acc. sg.	fem.	ū-ending	1	VI
u	n	unacc		ruahhun	82.17		noun	dat. sg.	fem.	ū-ending	1	VI
u	y	unacc		cotchvndvvn	83.03		adj.	gen. sg.	fem.	ū-ending	1	VI
u	n	unacc		pidarbun	83.18		adj.	gen. sg.	fem.	ū-ending	1	VI
u	n	unacc		rehtlihchun	84.09		adj.	dat. sg.	fem.	ū-ending	3	VI
u	n	unacc		rehtlichun	85.11	*	adj.	dat. sg.	fem.	ū-ending	3	VI
u	n	unacc	uz-ki	kanganer	87.08		part. pret.	nom. sg.	masc.	prefix	1	VI
u	n	unacc		forahtun	89.07		noun	dat. sg.	fem.	ū-ending	1	VI
u	n	unacc		mejstun	90.11		adj.	acc. sg.	fem.	ū-ending	1	VI
u	n	unacc		chirihhun	91.17		noun	dat. sg.	fem.	ū-ending	1	VI
u	n	unacc		chuhchinum	93.04		noun	gen. sg.	fem.	ū-ending	3	VI
u	n	unacc		oostun	97.02		noun	dat. sg.	fem.	ū-ending	1	VII
u	n	unacc		fastun	98.01		noun	gen. sg.	fem.	ū-ending	1	VII



u	n	unacc	fastun	98.03	noun	dat. sg.	fem.	ũ-ending	1	VII
u	n	unacc	fastun	99.08	noun	gen. sg.	fem.	ũ-ending	1	VII
u	n	unacc	lectjun	99.14	noun	gen. sg.	fem.	ũ-ending	1	VII
u	n	unacc	kankantem	99.18	part. pres.	dat. pl.	masc.	prefix	1	VII
u	n	unacc	suuarrun	100.05	adj.	dat. sg.	fem.	ũ-ending	1	VII
u	n	unacc	furjstun	100.09	noun	dat. sg.	fem.	ũ-ending	1	VII
u	n	unacc	furjstun	100.16	noun	dat. sg.	fem.	ũ-ending	1	VII
u	n	unacc	zuntrun	100.18	noun	acc. sg.	fem.	ũ-ending	1	VII
u	n	unacc	nuhtsamun	101.12	adj.	dat. sg.	fem.	ũ-ending	1	VII
u	n	unacc	iunkistun	101.13	adj.	dat. sg.	fem.	ũ-ending	1	VII
u	n	unacc	chirihhun	101.17	noun	dat. sg.	fem.	ũ-ending	1	VII
u	n	unacc	nuhtsamun	102.12	adj.	dat. sg.	fem.	ũ-ending	1	VII
u	n	unacc	chirjhchun	104.06	noun	gen. sg.	fem.	ũ-ending	3	VII
u	n	unacc	kankantero	104.10	part. pres.	gen. pl.	masc.	prefix	3	VII
u	n	unacc	nuctsamun	105.18	adj.	dat. sg.	fem.	ũ-ending	3	VII
u	n	unacc	lite	106.01	noun	dat. sg.	masc.	prefix	3	VII
u	n	unacc	uzke	106.03	verb	3rd sg. pres.	opt.	prefix	3	VII
u	n	unacc	merun	106.03	adj.	dat. sg.	fem.	ũ-ending	3	VII
u	n	unacc	lidit	106.15	verb	3rd sg. pres. ind.		prefix	3	VII
u	n	unacc	merun	107.02	adj.	dat. sg.	fem.	ũ-ending	3	VII
u	n	unacc	ruachun	107.10	noun	dat. sg.	fem.	ũ-ending	3	VII
u	n	unacc	ruachun	107.12	noun	acc. sg.	fem.	ũ-ending	3	VII
u	n	unacc	kante	108.11	part. pres.	nom. pl.	masc.	prefix	3	VII
u	n	unacc	feordun	108.13	num	dat. sg.	fem.	ũ-ending	3	VII
u	n	unacc	sextun	108.15	num	acc. sg.	fem.	ũ-ending	3	VII

u	n	unacc		ahtodun	109.03		adj.		dat. sg.		fem.	ũ-ending	3	VII
u	n	unacc		<b>fastun</b>	109.13		noun		gen. sg.		fem.	ũ-ending	3	VII
u	n	unacc		niuntun	109.17		num		dat. sg.		fem.	ũ-ending	3	VII
u	n	unacc		niuntun	110.01		num		gen. sg.		fem.	ũ-ending	3	VII
u	n	unacc		furjstun	110.05		noun		dat. sg.		fem.	ũ-ending	3	VII
u	n	unacc		<b>fastun</b>	110.08		noun		gen. sg.		fem.	ũ-ending	3	VII
u	n	unacc		leczun	111.05	*	noun		acc. sg.		fem.	ũ-ending	3	VIII
u	n	unacc		rehtliichun	111.09		adj.		dat. sg.		fem.	ũ-ending	3	VIII
u	n	unacc		aturmlihchvm	113.11	*	adj.		gen. sg.		fem.	ũ-ending	3	VIII
u	n	unacc		vvihun	113.12		adj.		gen. sg.		fem.	ũ-ending	3	VIII
u	n	unacc		ostrun	113.13		noun		gen. sg.		fem.	ũ-ending	3	VIII
u	n	unacc		rehtlichvn	120.08		adj.		dat. sg.		fem.	ũ-ending	3	VIII
u	n	unacc		<b>metamun</b>	120.17	*	adj.		dat. sg.		fem.	ũ-ending	3	VIII
u	n	unacc		cucalun	120.18		noun		acc. sg.		fem.	ũ-ending	3	VIII
u	n	unacc		kaliziun	121.04		noun		acc. pl.		fem.	ũ-ending	3	VIII
u	n	unacc		vvathvse	121.13		noun		dat. sg.		neut.	compound	3	VIII
u	n	unacc		vvathvse	122.04		noun		dat. sg.		neut.	compound	3	VIII
u	n	unacc	uz	kangantj	122.08		part. pres.					prefix	3	VIII
u	n	unacc		svvarjstun	122.17		adj.		dat. sg.		fem.	ũ-ending	3	VIII
u	n	unacc		caliziun	123.04		noun		acc. pl.		fem.	ũ-ending	3	VIII
u	n	unacc		selidvn	126.01		noun		dat. sg.		fem.	ũ-ending	3	VIII
u	n	unacc	uz-ka	kangan	127.13		part. pret.					prefix	3	IX
u	n	unacc		vvahhvse	129.17	*	noun		dat. sg.		neut.	compound	3	IX
u	n	unacc		rehtlichvn	132.09		adj.		gen. sg.		fem.	ũ-ending	3	IX
u	n	unacc		metamvn	133.09		adj.		dat. sg.		fem.	ũ-ending	3	IX

u	n	unacc		oparorun	135.09		adj.		dat. sg.		fem.	ū-ending	3	IX
u	n	unacc		mervn	135.13		adj.		dat. sg.		fem.	ū-ending	3	IX
u	n	unacc		redium	138.09		noun		acc. sg.		fem.	ū-ending	1	IX
u	n	unacc		erjrun	139.07		adj.		dat. sg.		fem.	ū-ending	1	IX
u	n	unacc		<b>forah</b> tun	141.06		noun		dat. sg.		fem.	ū-ending	1	IX
u	n	unacc		redium	142.09		noun		acc. sg.		fem.	ū-ending	1	IX
u	n	unacc		rorriun	143.05		noun		acc. sg.		fem.	ū-ending	1	X
u	n	unacc	uf-ke	kangan	145.01		part. pret.					prefix	1	X

## Appendix II

Overview of all the problematic words with a long vowel rejected from the database and not used in any of the calculations.

Vowel	VV	Acc	Prefix	Word	Page	x	Class	Form	Gender/ Mood	Type	Scribe	Quire
e	n	unacc		hebit	8.04	x	verb	3rd sg. pres.	ind.	ē-verb	1	I
u	n	unacc		cuatum	11.16	x	adj.	gen. pl.	masc.	ōm-ending	1	I
e	n	unacc	ki	hebita	15.09	x	verb	3rd sg. perf.	ind.	ē-verb	1	I
i	n	unacc		<b>truhtinan</b>	17.02	x	noun	acc. sg.	masc.	īn-suffix	1	II
i	n	unacc		<b>truhtine</b>	21.05	x	noun	dat. sg.	masc.	īn-suffix	1	II
e	n	unacc		andre	23.02	x	num.	nom. pl.	masc.	e-ending	1	II
i	n	unacc		truhtine	23.04	x	noun	dat. sg.	masc.	īn-suffix	1	II
e	n	unacc		pirū	23.10	x	verb	1st pl. pres.	ind.	mes-ending	1	II
i	n	unacc		<b>ejnlihhan</b>	25.16	x	pron. adj.	acc. sg.	masc.	līh-suffix	1	II
a	n	root		abulkii	30.13	x	noun	gen. sg.	fem.		1	II
o	n	unacc		diem selbon	32.13	x	pron. adj.	dat. pl.	masc.	ōm-ending	1	III
i	n	unacc		truhtine	33.18	x	noun	dat. sg.	masc.	īn-suffix	1	III
e	n	unacc		pirū	34.06	x	verb	1st pl. pres.	ind.	mes-ending	1	III
i	n	unacc		<b>truhtines</b>	36.04	x	noun	gen. sg.	masc.	īn-suffix	1	III
i	n	unacc		<b>truhtine</b>	40.09	x	noun	dat. sg.	masc.	īn-suffix	1	III
o	n	root		sosama	41.03	x	adv.				1	III
e	n	unacc		pirū	42.10	x	verb	1st pl. pres.	ind.	mes-ending	1	III
e	n	unacc		pirū	42.14	x	verb	1st pl. pres.	ind.	mes-ending	1	III

i	n	unacc		<b>truhtine</b>	44.02	x	noun	dat. sg.	masc.	in-suffix	1	III
i	n	root		<b>uizzago</b>	44.05	x	noun	nom. sg.	masc.		1	III
e	n	unacc		hebit	45.01	x	verb	3rd sg. pres.	ind.	ē-verb	1	III
i	n	unacc		<b>truhtinan</b>	45.06	x	noun	acc. sg.	masc.	in-suffix	1	III
i	n	unacc		<b>truhtine</b>	45.18	x	noun	dat. sg.	masc.	in-suffix	1	III
i	n	unacc		<b>truhtine</b>	47.12	x	noun	dat. sg.	masc.	in-suffix	1	IV
i	n	unacc		<b>truhtine</b>	47.18	x	noun	dat. sg.	masc.	in-suffix	1	IV
i	n	root		<b>uizzagin</b>	48.07	x	noun	dat. sg.	masc.		2	IV
i	n	root		<b>sinera</b>	48.12	x	poss. pron.	dat. sg.	fem.		2	IV
i	n	root		<b>uizzagin</b>	48.14	x	noun	dat. sg.	masc.		2	IV
e	n	unacc		<b>habentj</b>	49.09	x	part. pres.			ē-verb	2	IV
i	n	root		<b>uizzagin</b>	51.04	x	noun	dat. sg.	masc.		2	IV
o	n	unacc		<b>leczone</b>	52.08	x	noun	gen. pl.	fem.	ōno-ending	3	IV
o	n	unacc		<b>leczone</b>	54.10	x	noun	dat. pl.	fem.	ōm-ending	3	IV
e	y	unacc		andree	54.11	x	num.	nom. pl.	masc.	e-ending	3	IV
e	y	unacc		andree	56.10	x	num.	nom. pl.	masc.	e-ending	3	IV
e	n	unacc		andre	56.16	x	num.	nom. pl.	fem.	e-ending	3	IV
i	n	unacc		<b>truhtinlihhemu</b>	57.11	x	adj.	dat. sg.	masc.	in-suffix	3	IV
i	n	unacc		<b>truhtinlihhemu</b>	57.11	x	adj.	dat. sg.	masc.	lth-suffix	3	IV
o	n	unacc		<b>zehanzugosto</b>	58.05	x	num.	nom. sg.	masc.	ōst-superlative	3	IV
e	n	unacc		andre	58.06	x	adj.	nom. sg.	masc.	ēr-ending	3	IV
e	n	unacc		andre	59.01	x	num.	nom. pl.	masc.	e-ending	3	IV
o	n	unacc		<b>f(únf)zugosto</b>	59.03	x	num.	nom. sg.	masc.	ōst-superlative	3	IV
o	n	unacc		<b>feorzugosto</b>	59.04	x	num.	nom. sg.	masc.	ōst-superlative	3	IV
o	n	unacc		<b>fínfzugosto</b>	59.04	x	num.	nom. sg.	masc.	ōst-superlative	3	IV

i	n	root		<b>sinemv</b>	59.09	x	poss. pron.	dat. sg.	masc.		3	IV
i	n	unacc		<b>truh̄tinlihhemv</b>	59.18	x	adj.	dat. sg.	masc.	l̄th-suffix	3	IV
i	n	unacc		<b>truh̄tinlihhemv</b>	59.18	x	adj.	dat. sg.	masc.	īn-suffix	3	IV
a	n	unacc		<b>dorno</b>	60.02	x	noun	acc. pl.	masc.	ā-ending	3	IV
i	n	root		<b>uuhero</b>	60.10	x	adj.	gen. pl.	masc.		3	IV
i	n	unacc		<b>truh̄tinlihhemv</b>	60.12	x	adj.	dat. sg.	masc.	l̄th-suffix	3	IV
i	n	unacc		<b>truh̄tinlihhemv</b>	60.12	x	adj.	dat. sg.	masc.	īn-suffix	3	IV
o	n	root		<b>ostrom</b>	60.18	x	noun	dat. pl.	fem.		3	IV
i	n	unacc		<b>eocouueliheru</b>	61.06	x	pron. adj.	dat. sg.	fem.	l̄th-suffix	3	IV
i	n	unacc		<b>truh̄tinlihh̄heru</b>	61.07	x	adj.	dat. sg.	fem.	l̄th-suffix	3	IV
i	n	unacc		<b>truh̄tinlihh̄heru</b>	61.07	x	adj.	dat. sg.	fem.	īn-suffix	3	IV
i	n	root		<b>uuizzago</b>	61.14	x	noun	nom. sg.	masc.		3	IV
i	n	root		<b>sines</b>	62.09	x	poss. pron.	gen. sg.	neut.		3	IV
i	n	root		<b>sin</b>	62.16	x	verb	3 <sup>rd</sup> pl. pres.	opt.		3	IV
o	n	unacc		<b>salmono</b>	63.03	x	noun	gen. pl.	masc.	ōno-ending	3	V
i	n	root		<b>sin</b>	65.03	x	verb	3 <sup>rd</sup> pl. pres.	opt.		3	V
a	n	unacc		<b>taga</b>	65.05	x	noun	acc. pl.	masc.	ā-ending	3	V
i	n	unacc		<b>truh̄tinlihhun</b>	65.11	x	noun	gen. sg.	fem.	l̄th-suffix	3	V
i	n	unacc		<b>truh̄tinlihhun</b>	65.11	x	noun	gen. sg.	fem.	īn-suffix	3	V
u	n	unacc		<b>truh̄tinlihhun</b>	65.11	x	noun	gen. sg.	fem.	ū-ending	3	V
i	n	unacc		<b>truh̄tinlichun</b>	66.06	x	noun	gen. sg.	fem.	īn-suffix	3	V
i	n	unacc		<b>truh̄tinlichun</b>	66.06	x	noun	gen. sg.	fem.	l̄th-suffix	3	V
i	n	root		<b>citum</b>	66.16	x	noun	dat. pl.	fem.		3	V
e	n	unacc		<b>andre</b>	67.01	x	num.	nom. pl.	masc.	e-ending	3	V
i	n	unacc		<b>truh̄tinlihhemv</b>	68.10	x	adj.	dat. sg.	masc.	l̄th-suffix	3	V

i	n	unacc		truh <i>ti</i> nl <i>ih</i> hemv	68.10	x	adj.		dat. sg.	masc.	īn-suffix	3	V
a	n	unacc		fatare	68.17	x	noun		nom. pl.	masc.	ā-ending	3	V
o	n	unacc		dem selbon	84.03	x	pron. adj.		dat. pl.	masc.	ōm-ending	3	VI
i	n	unacc		It <i>ni</i> uuiv	90.08	x	noun		dat. sg.	fem.	ī-fem	1	VI
e	n	unacc	furi	ch <u>u</u> eman	91.06	x	verb		3rd pl. pres.	opt.	opt.	1	VI
e	n	unacc		nohheiner	92.05	x	indef. pron.		gen. sg.	masc.	pron. gen.	3	VI
e	n	unacc		hebit	95.06	x	verb		3rd sg. pres.	ind.	ē-verb	3	VII
e	n	unacc		arebeitan	109.17	x	verb		3rd pl. pres.	opt.	opt.	3	VII
e	n	unacc		lesan	110.15	x	verb		3rd pl. pres.	opt.	opt.	3	VII
e	n	unacc		andre	111.10	x	num.		nom. pl.	masc.	e-ending	3	VIII
i	n	unacc		truh <i>ti</i> nl <i>ih</i> hemv	111.12	x	adj.		dat. sg.	masc.	īn-suffix	3	VIII
i	n	unacc		truh <i>ti</i> nl <i>ih</i> hemv	111.12	x	adj.		dat. sg.	masc.	līh-suffix	3	VIII
u	n	unacc		lec <i>z</i> um	111.13	x	noun		dat. sg.	fem.	ū-ending	3	VIII
i	n	root		sinan	112.13	x	poss. pron.		acc. sg.	masc.		3	VIII
e	n	unacc		pirū	112.17	x	verb		1st pl. pres.	ind.	mes-ending	3	VIII
u	n	unacc		lec <i>ci</i> um	112.18	x	noun		dat. sg.	fem.	ū-ending	3	VIII
e	n	unacc		desem	113.02	x	pron.		dat. pl.	masc.	ēm-ending	3	VIII
o	n	unacc		dem selbon	125.03	x	pron. adj.		dat. pl.	masc.	ōm-ending	3	VIII
a	n	unacc		atume	125.12	x	noun		acc. pl.	masc.	ā-ending	3	VIII
e	n	unacc		hebit	129.07	x	verb		3rd sg. pres.	ind.	ē-verb	3	IX
e	n	unacc	ke	nentemv	130.01	x	pp.		dat. sg.	masc.	ē-verb	3	IX
e	n	unacc		andre	135.05	x	num.		nom. pl.	masc.	e-ending	3	IX
i	n	unacc		truhtine	135.07	x	noun		dat. sg.	masc.	īn-suffix	3	IX
e	n	unacc		andre	139.03	x	num.		nom. pl.	masc.	e-ending	1	IX
o	n	unacc		dem selbon	143.15	x	pron. adj.		dat. pl.	masc.	ōm-ending	1	X

a	n	unacc	ze	haningarro	146.16	x	noun	acc. pl.	masc.	ā-ending	1	X
e	n	unacc		eddesljhhera	149.05	x	adj.	nom. sg.	masc.	ēr-ending	1	X



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